

VIRAVENT

Description

The Viravent is a high-efficiency in-line air separator suitable for use on heating and chilled systems. In sealed heating systems free and dissolved air causes a number of problems. Micro-bubbles form on the pump suction as a direct result of localized pressure drop. This directly affects the liquid displacement of rotary pumps, reducing the flow capacity and therefore the efficiency of the system. The presence of micro-bubbles and dissolved gas can reduce the liquid displacement of a pump by 10 to 45%. Heat will also allow dissolved gasses to be drawn out of the solution, following Henry's law, placement of this equipment is important to guarantee effective operation. Effective removal of free air is essential for increasing the operational life of the system as a whole.



SV-F



SV-D-Y



SV-D-D

Features

Body	:	Carbon Steel - ST37 / Nickel Coated
Size	:	DN 50 - 600
Max. Work.Temp.	:	110 °C
Max. Work. Pressure	:	10 Bar
Product Code	:	SV - F

Benefits

- Removes all circulating air and micro bubbles effectively.
- Removes trapped air when installed at the correct location.
- Greatly reduces the need for manual venting.
- Constant low-pressure drop.
- No unnecessary shutdown.
- Connection diameters from 3/4" to DN600 and above.
- A complete range, suitable for various pressures and temperatures.
- Exceptional guarantee.



Where to Install for better performance?

The Viravent, air must be installed at the hottest point in the system. For a heating installation, this is in the flow from the boiler. Microbubbles are released at the hottest spot in an installation. This release of gas is determined by the solubility of gases in water. The solubility reduces with an increase in temperature. In case of a decrease in pressure, Henry's law implies further solubility. In simple terms, the air is released from the water as the temperature increases or the pressure decreases.

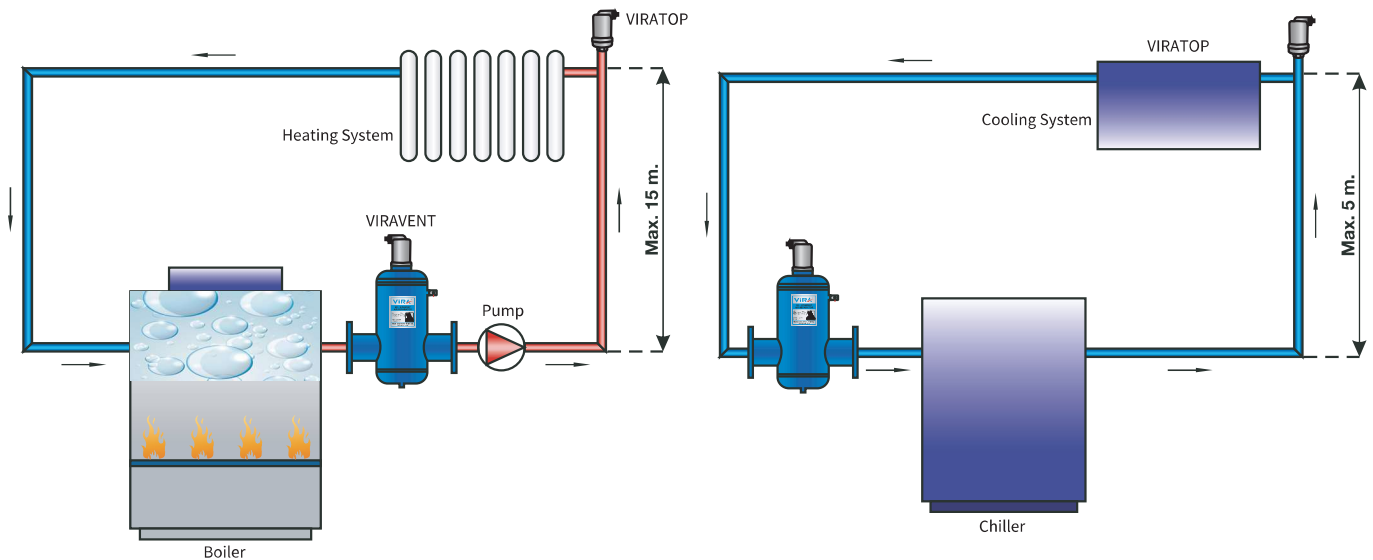


Installations

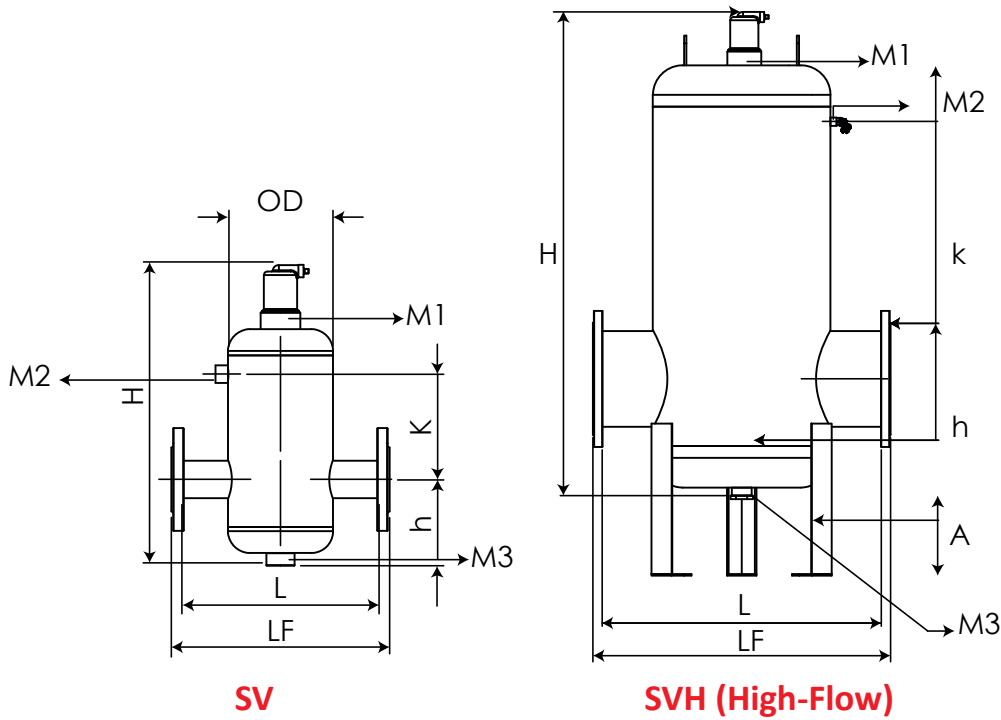
Viravent units must be installed at the hottest part of the system for optimum performance. The static head must not exceed 15m for heating system and 5m for cooling system. The efficiency of the unit will be reduced if;

- The static head is exceeded.
- The maximum flow velocity of 3m/s is exceeded.

In heating systems the deaerator should be in the flow, preferably at the highest temperature (next to the heat source) and low pressure if possible. Viravent, Deaerator should be installed after the boiler and on the pump suction side, as these are the points where the formation of microbubbles is greatest. In chilled water systems, the unit must be located in the return close to the chiller.



Dimensions



SV

SVH (High-Flow)

Connection DN	OD (mm)	L (mm)	LF (mm)	Standart; Nom. 1,5 m/s							Hi-flow; nom. 3 m/s							M1	M2	M3
				nom. = 1,5 m/s							max. = 3 m/s									
				H (mm)	h (mm)	Max.Flow (L/s)	Max.Flow (m ³ /h)	Max.Flow (kPa)	Leg A (mm)	H (mm)	h (mm)	Max.Flow (L/s)	Max.Flow (m ³ /h)	Max.Flow (kPa)	Leg A (mm)					
SV	50	168,3	330	350	482	138	3,3	12	3		650	150	5,8	21	11,8		1 3/4"	1/2" HM	1"	
SV	65	168,3	330	350	482	138	6,3	22,5	2,7		650	150	10,0	36	11,6		1 3/4"	1/2" HM	1"	
SV	80	219,1	450	470	607	177	8,3	30	2,9		730	200	15,0	54	12,4		1 3/4"	1/2" HM	1"	
SV	100	219,1	455	475	607	177	12,5	45	3,7		730	200	23,3	84	14,6		1 3/4"	1/2" HM	1"	
SV	125	323,9	615	635	797	267	20,8	75	4,2		1067	250	36,7	132	16,8		1 3/4"	1/2" HM	1"	
SV	150	323,9	615	635	797	267	31,3	112,5	4,9		1067	250	52,8	190	19,4		1 3/4"	1/2" HM	1"	
SV	200	400	745	775	997	297	52,1	187,5	5,8		1317	300	94,2	339	23,1		1 3/4"	1/2" HM	1"	
SV	250	500	860	890	1237	357	83,3	300	6,9		1677	360	146,9	529	27,7		1 3/4"	1/2" HM	2"	
SV	300	600	975	1005	1557	395	114,6	412,5	7,7		2032	410	211,9	763	31	270	1 3/4"	1/2" HM	2"	
SV	350	700	1098	1128	1940	430	143,8	517,5		270	2430	543	288,3	1038		270	1 3/4"	1/2" HM	2"	
SV	400	800	1194	1226	2170	480	188,3	678		270	2707	609	376,7	1356		270	1 3/4"	1/2" HM	2"	
SV	450	900	1300	1330	2388	540	238,3	858		270	3000	650	476,7	1716		270	1 3/4"	1/2" HM	2"	
SV	500	1000	1400	1430	2680	590	294,2	1059		270	3220	703	588,6	2119		270	1 3/4"	1/2" HM	2"	
SV	600	1200	1600	1630	3020	680	423,8	1525,5		270	3870	820	847,8	3052		270	1 3/4"	1/2" HM	2"	