SPIROVENT® DIRT

MICROBUBBLE™ SEPARATORS
DIRT SEPARATORS
HIGH VELOCITY

SPIROTHERM

THE ULTIMATE IN DISTRIBUTION EFFICIENCY

AIR- AND DIRT-FREE SYSTEM WATER THROUGH A SINGLE UNIT

AIR AND DIRT IN LARGE VOLUME FLUID SYSTEMS CAUSE MANY PROBLEMS.

The life and the efficiency of a large volume fluid system are greatly dependent on clean system water. Air and dirt problems cause frequent breakdowns and increased customer complaints. Corrosion, cavitation and wear are only some of the consequences of system water filled with air and dirt.

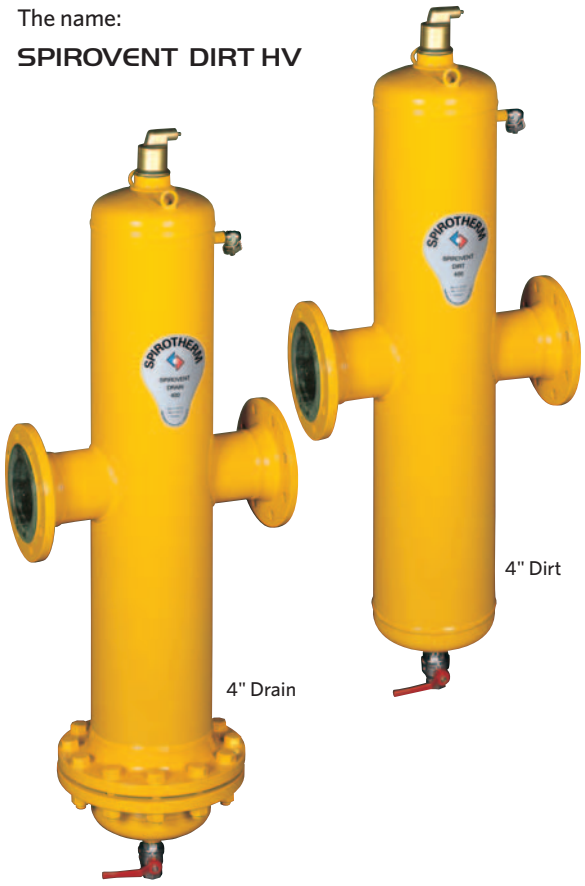
Recurring problems and increased maintenance result in unnecessary costs and dissatisfied owners.

There is a solution!

A large volume fluid system without air and dirt is possible! There is a unique dual-purpose device that will remove all air and dirt down to the smallest particle, keeping the system free from air and dirt, permanently. It is low-maintenance and works without strainers or filters. Less maintenance, fewer costs, satisfied owners!

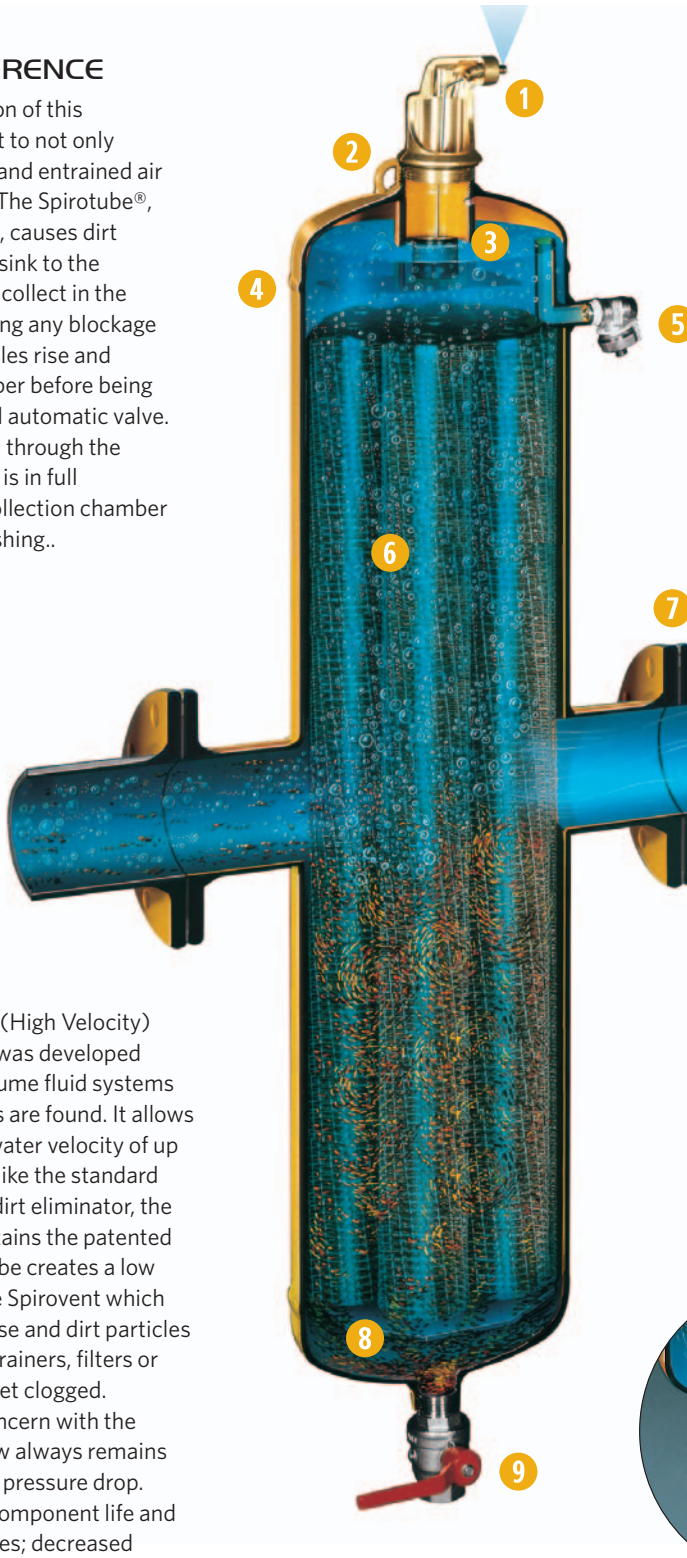
The name:

SPIROVENT DIRT HV



THE KEY DIFFERENCE

The unique construction of this combined unit allows it to not only remove microbubbles and entrained air but also dirt particles. The Spirotube®, the core of the HV unit, causes dirt particles of all sizes to sink to the bottom of the unit and collect in the dirt chamber, eliminating any blockage concerns. The air bubbles rise and collect in the air chamber before being released via an integral automatic valve. The dirt can be flushed through the drain while the system is in full operation. The large collection chamber ensures infrequent flushing..



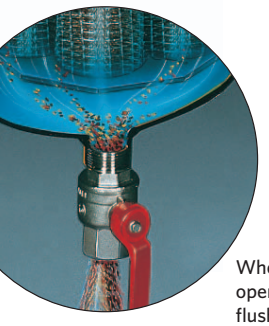
The Spirovent Dirt HV (High Velocity) air and dirt eliminator was developed especially for large volume fluid systems where higher velocities are found. It allows a maximum entering water velocity of up to 10' per second, and like the standard Spirovent Dirt air and dirt eliminator, the Spirovent Dirt HV contains the patented Spirotube. The Spirotube creates a low velocity area inside the Spirovent which allows air bubbles to rise and dirt particles to sink. There are no strainers, filters or replacement parts to get clogged. Blockages are not a concern with the Spirovent Dirt HV! Flow always remains constant, without high pressure drop. The result: increased component life and heat transfer capabilities; decreased oxygen-based corrosion and cavitation; and the elimination of annoying gurgling and other air-related noises.

THE ULTIMATE IN DISTRIBUTION EFFICIENCY

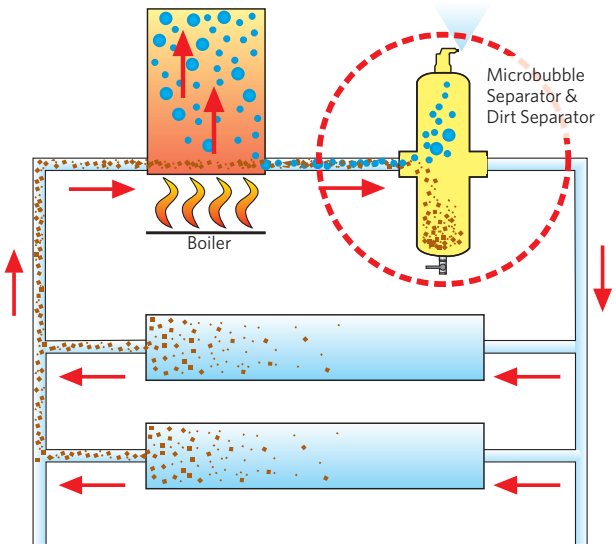
ADVANTAGES TO THE SPECIFIER, INSTALLER AND OWNER

- No change to piping design selection required. HV units often match pipe size.
- Larger shell and increased coalescing/ barrier medium provide high efficiency.
- Exclusively designed for full-flow high velocity systems such as central plants and district heating/cooling.
- No bypass, isolating valves or replacement filters to clog and reduce flow.
- Dirt can be flushed while system is fully operational.
- Quiet operation.
- Reduced oxygen-based corrosion and pump cavitation.
- Minimum pressure drop; always constant.
- Optional removable head for bundle inspection.

1. The automatic air vent is guaranteed not to leak and can only be closed by the installer for a pressure test.
2. Lifting eyes make installation easy.
3. The air chamber has been specially designed so that dirt cannot reach the valve.
4. Welded steel construction guarantees long life.
5. Valve for releasing large amounts of air during filling and for skimming off floating dirt.
6. The unique Spirotube is the core of the Spirovent Dirt HV. Designed to trap the smallest microbubble and microscopic dirt particle, yet it offers little resistance to flow.
7. Flanged connections
8. Large capacity collection chamber reduces the need for frequent draining.
9. Drain valve for flushing out the dirt.



When the drain valve is opened the system pressure flushes out the collected dirt. This only takes a few seconds.

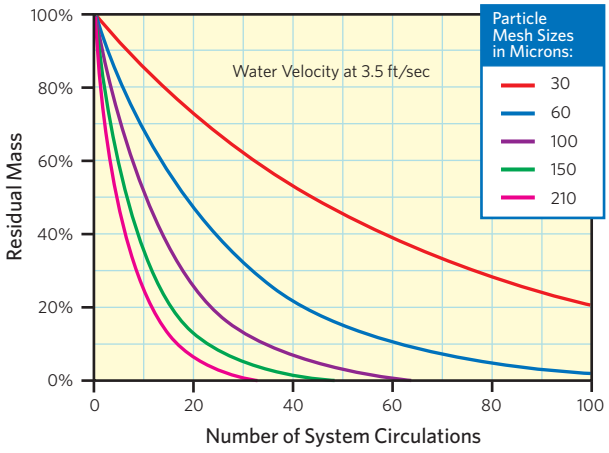


INSTALL THE SPIROVENT DIRT HV FOR OPTIMUM PERFORMANCE

Ideal placement of a Spirovent unit is based on microbubble separation and Henry's Law. Simply put, Henry's Law states that air is released from water as the temperature increases or the pressure decreases*. For this reason, the Spirovent is typically installed in the hottest point in the system. For a heating installation, this is in the supply from the boiler. In a chilled water circuit, the warmest point is in the return to the chiller.

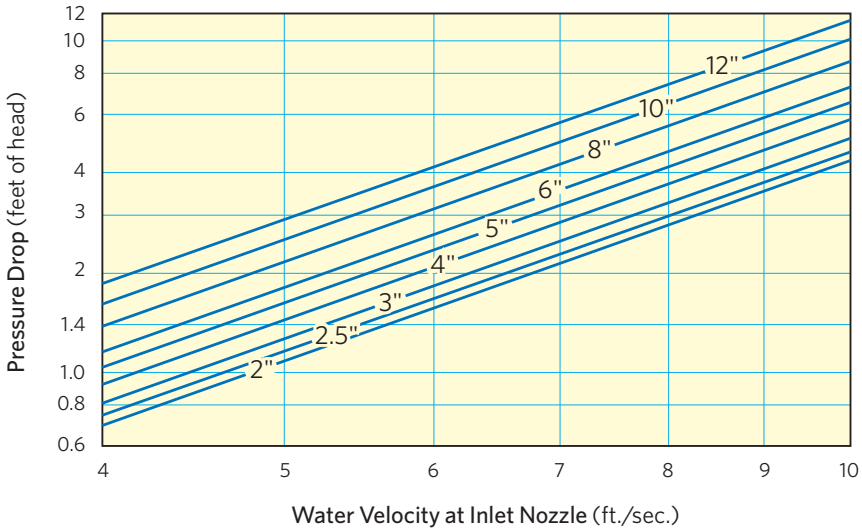
*For more detailed technical information, ask about our Spirotism booklet .

DIRT SEPARATION EFFICIENCY



SPIROVENT® DIRT HV

PRESSURE DROP



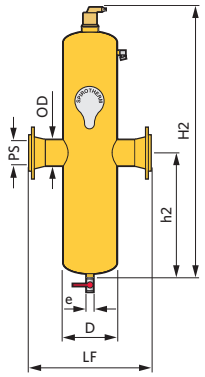
TECHNICAL SPECIFICATIONS

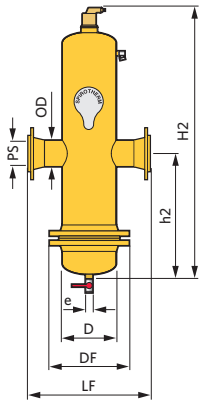
SPIROVENT HV SENIOR

DIRT Part Number DRAIN Part Number		VHT200 VHN200	VHT250 VHN250	VHT300 VHN300	VHT400 VHN400	VHT500 VHN500	VHT600 VHN600	VHT800 VHN800	VHT1000 VHN1000	VHT1200 VHN1200
Pipe Size	Inch	2	2.5	3	4	5	6	8	10	12
O.D.	Inch	2.375	3	3.5	4.5	5.5	6.625	8.625	10.75	12.75
D	Inch	6.3	6.3	8.6	8.6	12.8	12.8	16.0	20.0	24.0
DF	Inch	11.2	11.2	13.4	13.4	18.1	18.1	22.8	28.1	33.1
H2	Inch	35.8	35.8	45.1	45.1	61.8	61.8	78.5	95.0	113.0
h2	Inch	15.9	15.9	20.7	20.7	29.3	29.3	37.6	47.0	55.0
LF	Inch	15.2	15.7	20.2	20.6	27.7	27.7	33.6	37.5	42.5
e	Inch	1	1	1	1	1	1	1	1	1
Volume	Gal.	3.5	3.5	8.8	8.8	28.9	28.9	59	117	198.4
Weight: Dirt	Lbs.	88	95	178	186	312	336	590	986	1518
Weight: Drain**	Lbs.	120	150	195	262	479	505	820	1269	2025
Max. Flow*	GPM	105	155	225	405	630	910	1610	2450	3500

*Approximately 10 ft. per second inlet velocity.

**Spirovent Drain models feature a removable lower head to facilitate cleaning.





All Spirovents fabricated and stamped in accordance with ASME Section VIII, Division 1 for unfired pressure vessels.
Standard rating is 150 psi at 270°F. Consult local sales office for special requirements.
Custom dimensions available for space limitations.
Refer to web site Submittal Data for higher flows and models up to 36".

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A SPIRO ENTERPRISES COMPANY

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