

**SPIROVENT® AIR**



**AIR ELIMINATORS  
HIGH VELOCITY**

**SPIROTHERM**

THE ULTIMATE IN DISTRIBUTION EFFICIENCY

# PERMANENTLY AIR-FREE SYSTEM WATER

## AIR IN LARGE VOLUME FLUID SYSTEMS CAUSES MANY PROBLEMS.

Noisy pipes, valves and other air-related system noises are often accepted as the signs of a functioning system. Excessive pump noise, cavitation and cascading water in terminal units are considered normal.

But....serious problems can occur.

Air in large volume fluid systems can cause corrosion, reduced efficiency, poorly heated or inadequately cooled rooms, accelerated component wear, and ongoing complaints.

### Result:

Unnecessary maintenance costs and a dissatisfied owner.

### There is a solution!

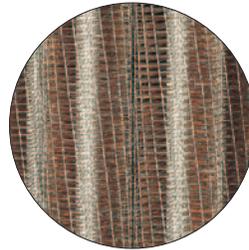
A large volume fluid system without air-related problems is possible! There is a device that will keep any high-volume fluid system free of air, permanently.

### The name:

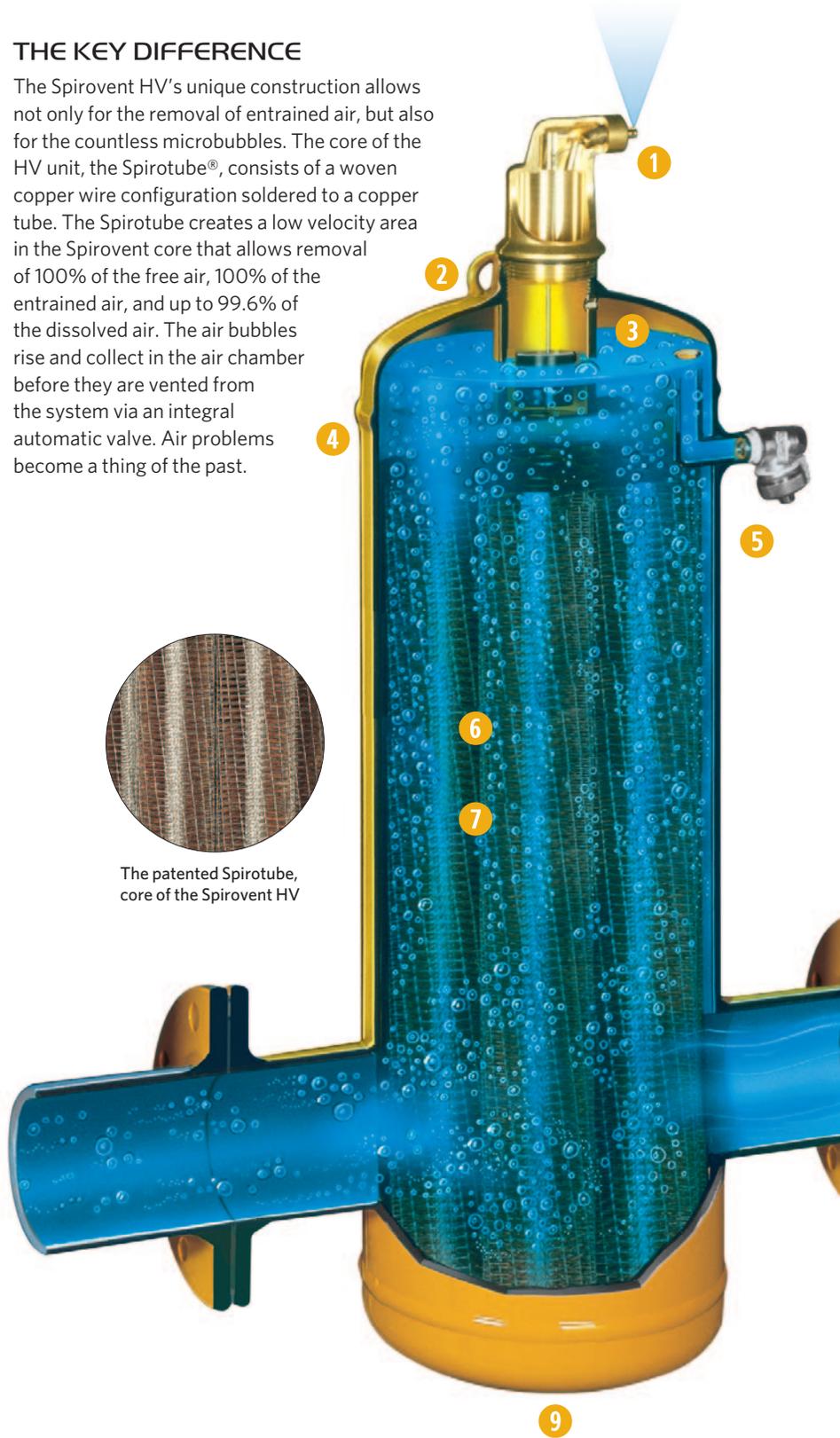
**SPIROVENT HV**

## THE KEY DIFFERENCE

The Spirovent HV's unique construction allows not only for the removal of entrained air, but also for the countless microbubbles. The core of the HV unit, the Spirotube®, consists of a woven copper wire configuration soldered to a copper tube. The Spirotube creates a low velocity area in the Spirovent core that allows removal of 100% of the free air, 100% of the entrained air, and up to 99.6% of the dissolved air. The air bubbles rise and collect in the air chamber before they are vented from the system via an integral automatic valve. Air problems become a thing of the past.



The patented Spirotube, core of the Spirovent HV





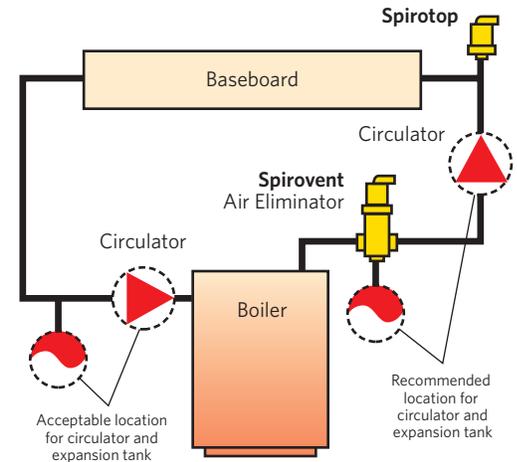
## ADVANTAGES TO THE SPECIFIER, INSTALLER AND OWNER

- No change to piping design selection required. HV units often match pipe size.
- Larger shell and increased coalescing surface provide high efficiency.
- Exclusively designed for high velocity systems such as central plants and district heating/cooling.
- Optimum heat transfer.
- Increased component life.
- Reduced oxygen-based corrosion and pump cavitation.
- Quiet operation.

## THE ONLY SEPARATOR MADE EXCLUSIVELY FOR HIGH VELOCITY SYSTEMS.

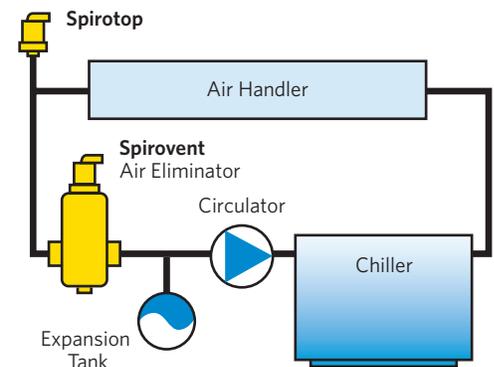
The Spirovent HV (High Velocity) air eliminator was developed especially for large volume fluid systems where higher velocities are found. It allows a maximum entering water velocity of up to 10' per second, and like the standard Spirovent, the HV boasts the patented Spirotube, the core of the HV unit. The Spirotube allows the Spirovent HV to scrub bubbles from the water, thereby increasing component life and heat transfer abilities; reducing oxygen-based corrosion and pump cavitation; and eliminating annoying gurgling and other air-related system noises.

- 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 HV. Designed to trap the smallest microbubble yet it offers little resistance to flow
- 7 Extended static column allows for greater velocities and assures unsurpassed air separation efficiency.
- 8 Flanged connections
- 9 Drain plug. Also suitable for connecting a valve or temperature sensor.



## INSTALL THE SPIROVENT HV FOR OPTIMUM PERFORMANCE

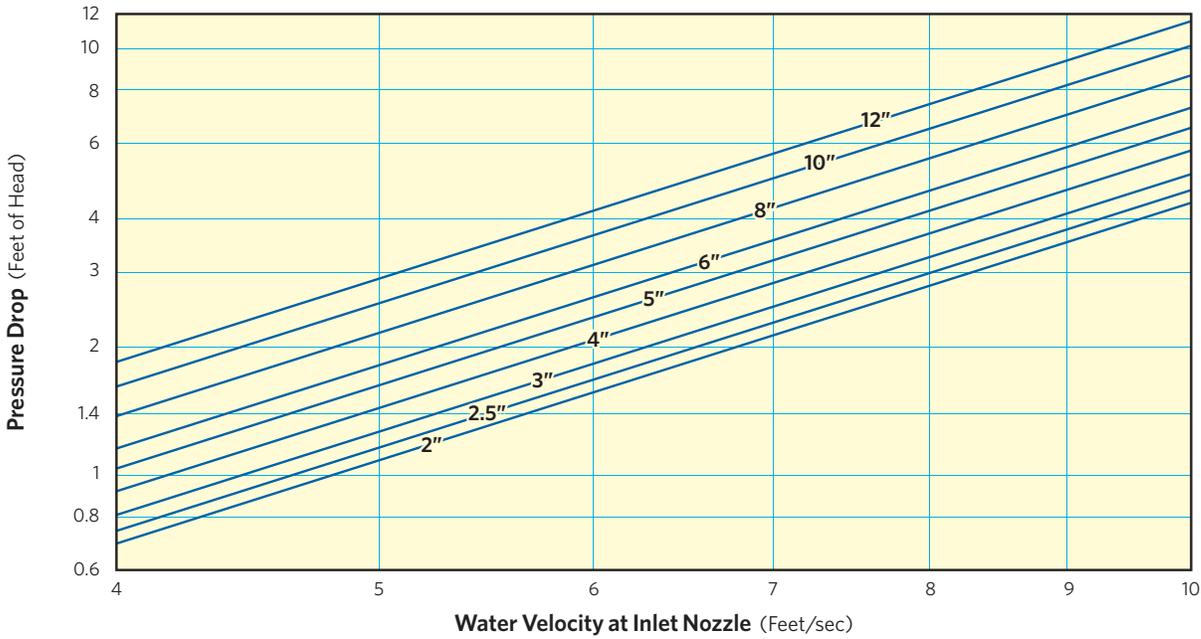
Ideal placement of the Spirovent is based on microbubble separation and Henry's Law. Simply put, Henry's Law states that air is released from water as the temperature increases or the pressure decreases\*. For this reason, the Spirovent is typically installed in the hottest point of the system. For a 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.

# SPIROVENT® AIR HV

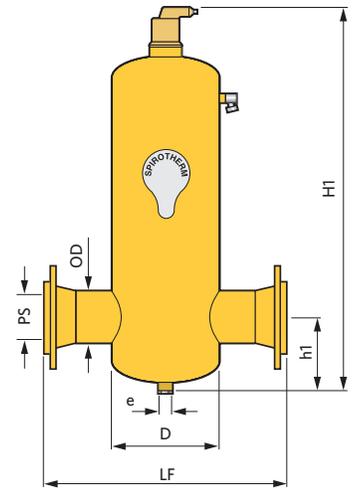
## PRESSURE DROP



## TECHNICAL SPECIFICATIONS

### SPIROVENT HV SENIOR

Part Number		VHR200	VHR250	VHR300	VHR400	VHR500	VHR600	VHR800	VHR1000	VHR1200
Pipe Size	Inch	2	2.5	3	4	5	6	8	10	12
O.D.	Inch	2.375	3.0	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
H1	Inch	24.8	24.8	30.9	30.9	41.1	41.1	51.8	67.5	79.7
h1	Inch	5.0	5.4	6.4	6.8	8.6	9.2	10.8	13.0	15.2
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.	2.2	2.2	5.9	5.9	18.3	18.3	37.6	78.6	135.9
Weight	Lbs.	69	75	133	152	242	276	432	730	1250
Max. Flow*	GPM	100	150	230	400	620	900	1550	2450	3500



\*Approximately 10 ft. per second inlet velocity

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".