SPIROVENT® JUNIOR





MICROBUBBLE™ SEPARATORS
DIRT SEPARATORS
COMBINATION AIR/DIRT SEPARATORS

SPIROTHERM

THE ULTIMATE IN DISTRIBUTION EFFICIENCY

PERMANENTLY AIR-FREE SYSTEM WATER

AIR IN SYSTEM WATER CAUSES MANY PROBLEMS.

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

But... air in system water can cause corrosion, reduced efficiency, poorly heated or inadequately cooled rooms, accelerated component wear and on-going complaints.

There is a device that will keep your system free of air ... permanently. Less maintenance, quiet operation, fewer costs!

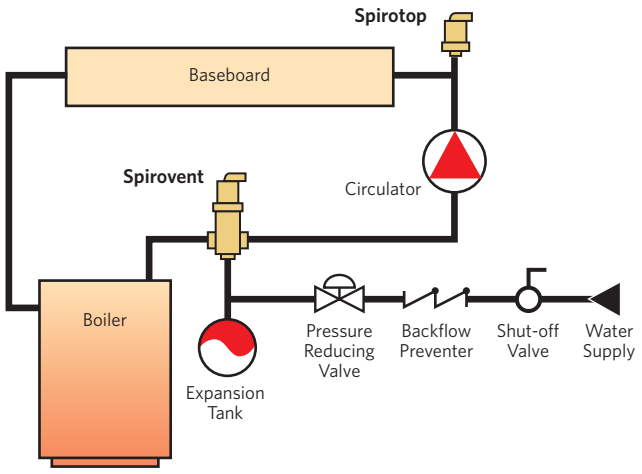
The name:

SPIROVENT

Unlike conventional air eliminators or air scoops, the Spirovent completely eliminates 100% of the free air, 100% of the entrained air, and up to 99.6% of the dissolved air in the system. Consisting of woven copper wire soldered to a copper tube, the patented Spirotube® creates a low velocity area in the Spirovent that scrubs the bubbles from the water. 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.

INSTALL THE SPIROVENT FOR OPTIMUM PERFORMANCE

Ideal placement of the Spirovent Junior 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. In hydronic heating systems, the Spirovent should be installed in the boiler supply line where the temperature is highest. Should the circulator be located on the supply line as well, the Spirovent should be installed between the boiler and the circulator where pressure is also the lowest.

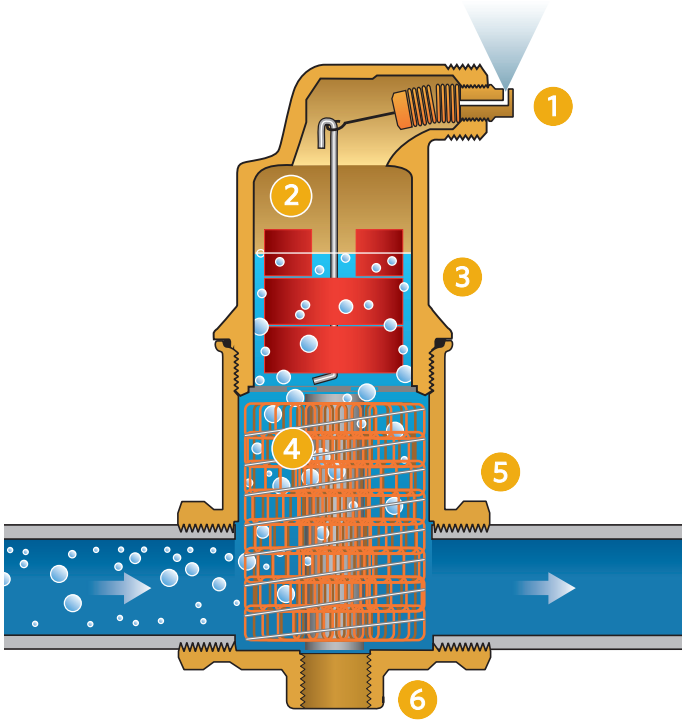


*For more detailed technical information, ask about our Spirotism booklet .

ADVANTAGES TO THE INSTALLER AND END-USER

- Maintenance free.
- No venting required.
- Vent head is designed to stay dry. Dirt and leak resistant.
- ½" male thread port for pressure testing or remote venting of unwanted gases.
- Quiet operation.
- Increased component life.
- Reduced oxygen-based corrosion and pump cavitation.

THE KEY DIFFERENCE



1. Unique valve mechanism is guaranteed not to leak and cannot be shut off. Standard thread for vent pipe connection or pressure testing.
2. Specially constructed air chamber to protect the valve mechanism from dirt. Sufficient volume to handle pressure fluctuations.
3. Solid brass construction for extended service life.
4. The unique Spirotube is the core of the Spirovent. Designed to trap even the smallest microbubbles, yet it offers little resistance to flow.
5. Threaded or sweat connections available.
6. ½" tank mount (not available on vertical models).

The Spirotube is the core of the Spirovent. It allows the Spirovent to scrub out 100% of the free air, 100% of the entrained air, and up to 99.6% of the dissolved air in the system. Even the smallest microbubbles coalesce and rise. Air is eliminated, component life and heat transfer abilities are increased; oxygen-based corrosion and pump cavitation are reduced; and annoying gurgling, cascading, and other air-related system noises are eliminated.

CLEAN SYSTEM WATER THROUGHOUT THE LIFE OF THE INSTALLATION

The life and efficiency of a heating or cooling system is greatly dependent on clean system water. Dirt in the system can cause increased component wear and frequent breakdowns. Corrosion, pump and control valve wear, and reduced efficiency result in increased maintenance, unnecessary costs and dissatisfied owners. Strainers and filters do the job, but if not cleaned on a regular basis, they cause low flow rates and, eventually, blockages.

There is a solution!

A system without dirt is possible. There is a unique device that will remove dirt down to the smallest particle. It works continuously and results in less maintenance, fewer costs and satisfied owners!

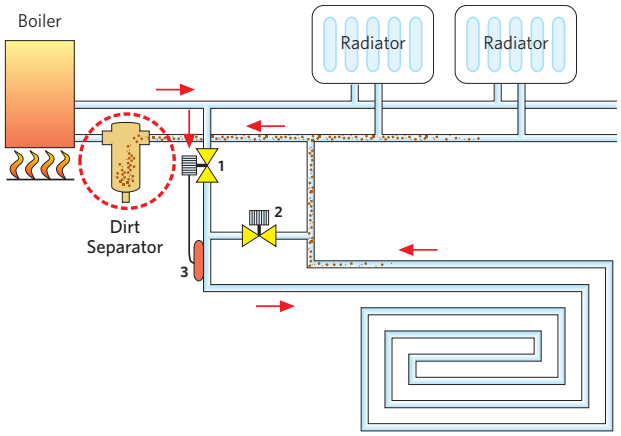
The name:

SPIROTRAP

The Spirotrap's construction is similar to the Spirovent. The patented Spirotube, core of the Spirovent, is also the core of the Spirotrap. In the Spirotrap, the Spirotube creates a low velocity area that forces dirt particles to sink to the dirt collection chamber at the bottom of the unit. Because the dirt is collected outside of the main flow, blockages do not occur, and the Spirotrap's pressure drop remains constant.

THE BENEFITS ARE CLEAR!

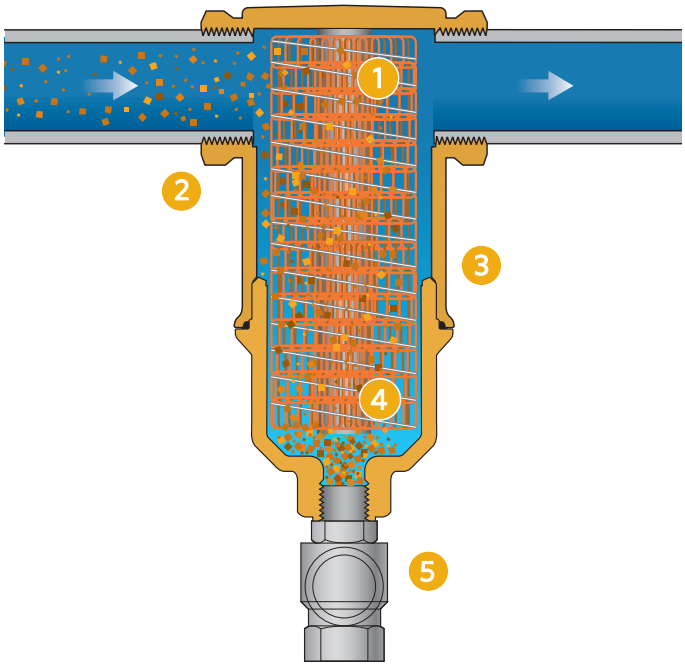
The Spirotrap is so much more than your traditional separator! The unique construction of the Spirotrap dirt separator allows for quick and simple dirt removal while the system remains fully operational, whereas traditional products need to be taken apart for cleaning. There are no strainers, filters or replacement parts to get clogged! Flow remains constant without the high pressure drop. Clearly beneficial, clearly Spirotrap!



ADVANTAGES TO THE INSTALLER AND END-USER

- Virtually no maintenance.
- No replacement filters to get clogged.
- Dirt can be flushed while system is fully operational.
- No bypass or isolating valves required.
- Will not block the flow.
- Minimum pressure drop; always constant.

THE KEY DIFFERENCE



1. The unique Spirotube is the core of the Spirotrap. Designed to allow even the smallest dirt particle to break free of the flow path and drop to the collection chamber.
2. Threaded or sweat connections available.
3. Solid brass construction for extended service life.
4. Large collection chamber reduces the need for frequent cleaning.
5. Drain valve for flushing out the dirt.

Spirotrap's unique construction allows for the removal of small dirt particles with a specific weight heavier than water. The patented Spirotube, the core of the Spirotrap, creates a low velocity area that forces dirt particles to sink to the dirt collection chamber at the bottom of the unit. The Spirotrap works continuously and is not affected by the trapped dirt. Blockages are impossible because the dirt is collected at the bottom of the unit.

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

The life and efficiency of a heating or cooling system are greatly dependent on the quality of the system water. Air and dirt problems cause frequent breakdowns and increased customer complaints. Corrosion, cavitation, and component wear are consequences of air-saturated, dirty water. Recurring problems and increased maintenance results in unnecessary costs and dissatisfied owners.

There is a solution!

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

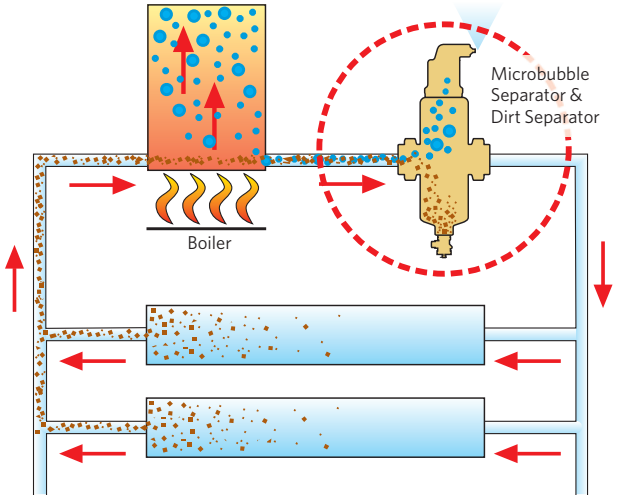
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SPIROVENT VDR

The unique construction of this combined unit allows for the removal of both entrained air and dirt particles. The patented Spirotube®, the core of the Spirovent Dirt 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 remains fully operational. The large dirt collection chamber ensures infrequent flushing.

INSTALL THE SPIROVENT VDR FOR OPTIMUM PERFORMANCE

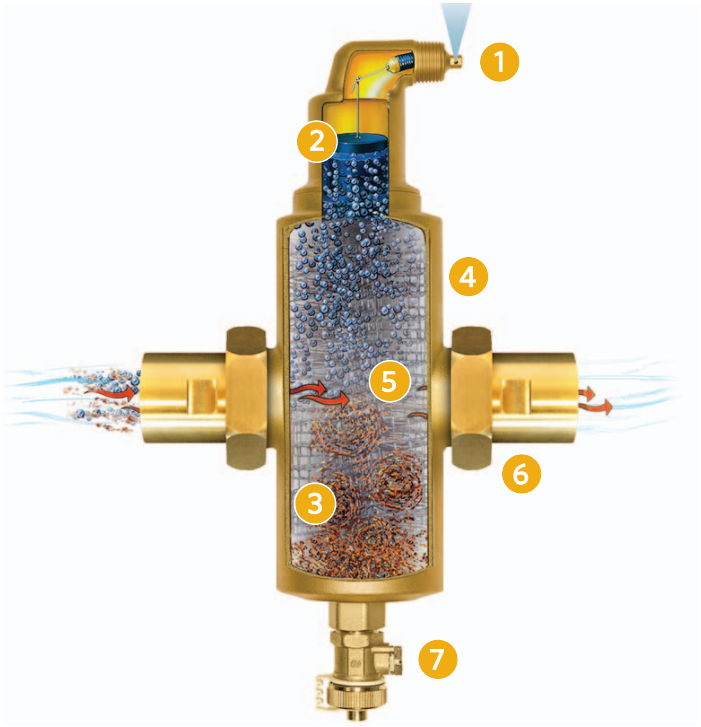
Ideal placement of a Spirovent unit is based on microbubble separation and Henry's Law. Simply put, Henry's Law states that air is released from water as the temperature increases or the pressure decreases*. For this reason, the Spirovent VDR is typically installed in the hottest point in the system.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



ADVANTAGES TO THE INSTALLER AND END-USER

- No bypass, isolating valves or replacement filters to clog and reduce flow
- Dirt can be flushed while the system is in full operation.
- Quiet operation
- Minimum pressure drop; always constant
- Increased component life
- Reduced oxygen-based corrosion and pump cavitation
- Provides optimum heat transfer
- Optional removable head for bundle inspection

THE KEY DIFFERENCE



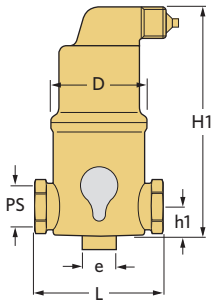
1. The automatic air vent is guaranteed not to leak and can only be closed by the installer for a pressure test.
2. The air chamber has been designed so that dirt cannot reach the valve.
3. Large capacity collection chamber reduces the need for frequent draining.
4. Solid brass construction guarantees long life.
5. The unique Spirotube is the core of the Spirovent VDR. Designed to trap the smallest microbubble and microscopic dirt particle, yet it offers little resistance to flow.
6. Threaded or sweat connections available.
7. Drain valve for flushing out the dirt.

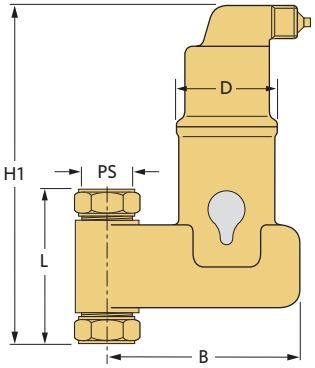
The Spirotube is the core of the Spirovent VDR unit. The Spirotube creates a low velocity area inside the Spirovent that allows air bubbles to rise and dirt particles to sink. There are no strainers, filters or replacement parts to get clogged. Flow always remains constant, without high pressure drop. The result: increased component life and heat transfer capabilities; decreased oxygen-based corrosion and pump cavitation; and the elimination of annoying gurgling, cascading and other air-related noises.

TECHNICAL SPECIFICATIONS

SPIROVENT JUNIOR AIR ELIMINATOR

THREADED SWEAT VERTICAL	Part Number Part Number Part Number		VJR075TM VJS075TM VJV075FT	VJR100TM VJS100TM VJV100FT	VJR125TM VJS125TM VJV125FT	VJR150TM VJS150TM N/A	VJR200TM VJS200TM N/A
Pipe Size			3/4"	1"	1 1/4"	1 1/2"	2"
D		Inch	2.6	2.6	2.6	2.6	4.0
Threaded	H1	Inch	6.0	7.0	7.8	9.1	10.8
	h1	Inch	0.8	1.4	1.5	1.6	2.3
	L	Inch	3.4	3.5	3.5	3.5	5.2
	Wt.	Lbs.	3.0	3.5	4.0	4.5	8.5
Sweat	H1	Inch	6.0	7.0	7.8	8.7	10.3
	h1	Inch	0.8	1.4	1.5	1.2	1.75
	L	Inch	4.1	4.5	4.5	4.7	6.9
	Wt.	Lbs.	3.0	3.0	3.5	4.5	8.5
Vertical	H1	Inch	6.0	7.0	9.1	N/A	N/A
	B	Inch	4.8	4.8	5.4	N/A	N/A
	L	Inch	3.4	3.5	3.8	N/A	N/A
	Wt.	Lbs.	4.8	5.0	6.0	N/A	N/A
e**			1/2"	1/2"	1/2"	1/2"	1/2"
Recom. Flow*		GPM	6	10	15	30	40



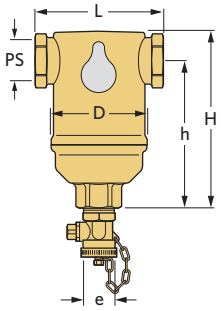


*Approximately 4 ft. per second inlet velocity. Refer to Spirovent Air Brochure for larger models and higher flows.

**Not Available on Vertical units.

SPIROTRAP JUNIOR DIRT SEPARATOR

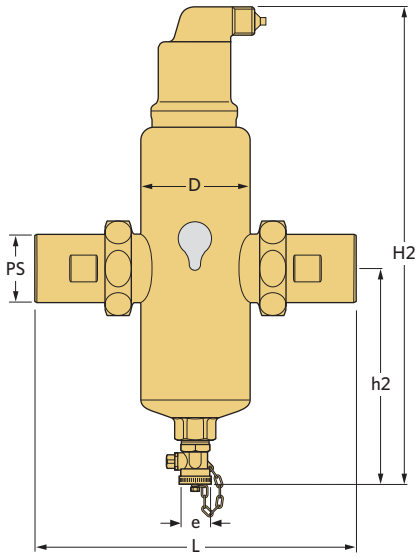
THREADED	Part Number		TDN075FT	TDN100FT	TDN125FT	TDN150FT	TDN200FT
Pipe Size			3/4"	1"	1 1/4"	1 1/2"	2"
D		Inch	2.6	2.6	2.6	2.6	4.0
H		Inch	4.6	5.6	6.3	7.9	9.6
h		Inch	3.8	4.3	4.8	6.3	8.0
L		Inch	3.3	3.5	3.5	3.5	5.2
e			1/2"	1/2"	1/2"	1/2"	1/2"
Wt.		Lbs.	2.5	3.0	3.5	4.0	8.0
Recom. Flow*		GPM	6	10	15	30	40



*Approximately 4 ft. per second inlet velocity. Refer to Spirotrap Brochure for larger models and higher flows.
Also available in sweat connections. Use "SW" in place of "FT for model number.

SPIROVENT JUNIOR AIR ELIMINATOR/DIRT SEPARATOR

THREADED	Part Number		VDR100FT	VDR125FT	VDR150FT	VDR200FT
Pipe Size			1"	1 1/4"	1 1/2"	2"
D		Inch	3.125	3.125	3.125	4.0
H2		Inch	14	14	14	17.25
h2		Inch	6.75	6.75	6.75	7.75
L		Inch	8.625	8.625	8.625	10.125
e			1/2"	1/2"	1/2"	1/2"
Wt.		Lbs.	9.0	9.0	9.0	14.5
Recom. Flow*		GPM	10	15	30	40



*Approximately 4 ft. per second inlet velocity
Also available in sweat connections. Use "SW" in place of "FT" for model number.

Note: All standard Spirovent and Spirotrap Junior models are of brass construction designed for a maximum working pressure of 150 psig and temperatures of 270°.

For solar applications and temperature ratings to 360°F, refer to Solar-1 brochure and "HT" options.

FOR INFORMATION ON OTHER SPIROTHERM PRODUCTS...

Spirotop® Automatic Air Vent



Brochure Top-2B

Spirovent® Commercial Air Eliminators



Standard Velocity: Brochure Air-2



High Velocity: Brochure HV Air-2

Spirotrap® Commercial Dirt Separators



Standard Velocity: Brochure Trap-2



High Velocity: Brochure HV Trap-2

Spirovent® Commercial Combination Air Eliminators / Dirt Separators



Standard Velocity: Brochure Dirt-2



High Velocity: Brochure HV Dirt-2

Spirovent Quad® Combination Air Eliminators / Dirt Separators / Hydraulic Separators



Brochure Quad-2

All brochures can be downloaded in PDF format at **http://www.spirotherm.com/docs/brochures**

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