PRODUCT OVERVIEW





THE BEST WATER QUALITY FOR OPTIMUM PERFOR-MANCE IN HVAC SYSTEMS

SPIRO life EXCEPTIONAL GUARANTEE

SPIRO TECH FOR BETTER PERFORMANCE

DOMESTIC | COMMERCIAL | INDUSTRY



Effective total solutions for optimum fluid quality and maximum system efficiency

The purpose of fluids in heating and cooling systems is to transport hot or cold water to where it is needed. The optimum conditions for this are a clean system with fluid that contains as little air and dirt as possible. If air and dirt are not sufficiently removed, all sorts of malfunctions and problems may occur. These can include elevated noise levels, the requirement for frequent manual venting of the system, continual cleaning of strainers and addition of treatment chemicals, decreasing pump performance, system imbalance, increased breakdown periods, excessive wear and higher energy consumption.

Continuous development

Spirotech is a firm believer in improvement and innovation. That is why we devote much time to exploring new opportunities and developing even better products and solutions. Our major concern is to create optimum fluid conditioning to ensure your system runs at full speed, but we also focus on such crucial aspects as maximum reliability and quality. Thanks to these features, our products and services can save energy, improve process reliability, improve comfort, reduce maintenance costs and extend the life of the system.



Focus on efficiency

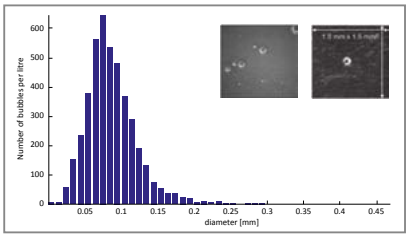
Spirotech's products and services are geared for efficiency and optimum operation, with minimum system failure and time spent on system and process maintenance. We take more than just costs into account: we think that responsible energy consumption is just as important. Thanks to over forty years of experience, we have acquired the knowledge and means to deliver products and solutions that combine all these features - like no other can.

Spirotech's products are suited both to solving problems in existing systems and to preventing problems in new buildings or buildings under renovation. They can be applied in all kinds of heating, cooling and process installations for domestic, commercial and industrial applications.

"A system free of air and dirt is more efficient."

Total solutions

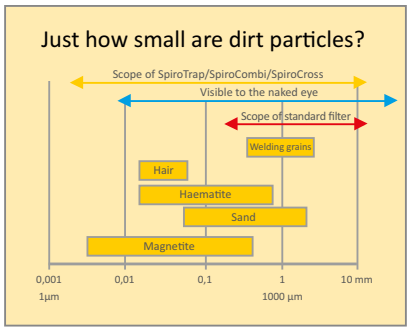
Spirotech offers an extensive range of total solutions for commercial systems: accessories, additives and advice to ensure optimum efficiency and guarantee the quality of the system fluid. These products and services reduce faults, wear and maintenance as well as improve system performance and lower energy consumption. And what is more, these total solutions provide major benefits and save time during the design, installation, start-up and commissioning of systems.



This graph shows the number of air bubbles in the water as it leaves the boiler and the size of these bubbles.

Air: a source of trouble in fluid systems

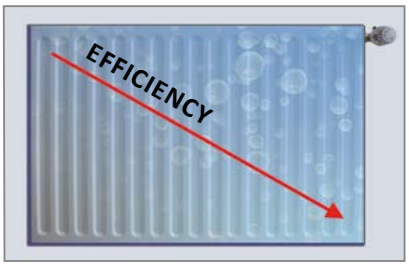
Fluid systems always contain some air. Air leads to corrosion and excessive wear of expensive components, loose corrosion particles and process interruptions. The result: less efficient operation, more system failures and unnecessary energy consumption. Initial deaeration provides only a limited solution, because many micro bubbles and dissolved gases remain behind. Moreover, air will always get into the system when topping up and during maintenance work or through leakages.



Especially small dirt particles (5-10 µm) cause problems.

The tiniest dirt particle can cause enormous problems

Dirt in fluid systems leads to malfunctions and heavy wear of system components. This dirt consists mainly of corrosion particles, which are drawn to the magnetic fields around pumps, valves and control valves. Other dirt particles are pumped around the system and eventually accumulate in critical components. This leads to unnecessary energy consumption and persistent problems, malfunctions and system failures. A filter is often installed; however, this is not an optimum solution: filters silt up and need to be cleaned and replaced regularly.



Effects on heating and cooling

- poor heating or cooling efficiency;
- poor heat or cold transfer at critical points;
- unnecessary malfunctions and failure;
- excessive amount of time required for regulating system and delays in commissioning;
- decreased energy efficiency.



Effects on the system

- corrosion throughout the system;
- excessive wear and blockages in pumps, heat exchangers and other vital system components;
- magnetite-related problems in electronic control components;
- unnecessary malfunctions and system failures;
- reduction of life span.



Fluid as a system component

Because fluid quality is an important factor for the efficient functioning of a system, the fluid should be considered a critical system component and treated as such. The fluid must be carefully made up and then properly maintained to prevent air and dirt becoming a problem.

Effective solutions for improved efficiency

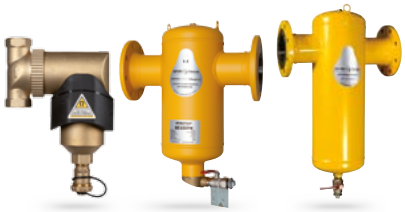
Spirotech's products all have a common aim: to improve the efficiency of systems and processes. Our products are used for a huge variety of buildings and processes. From the smallest family home to the largest hospital or district heating systems.



SPIROTOP®

Automatic air vents

- high venting capacity;
- reliable and leak-free;
- prevent air locks.



SPIROTRAP®

Dirt separators

- also remove the tiniest particles;
- will not silt up, contrary to filters;
- constant low pressure drop.



SPIROPLUS®

Flushing agents and additives

- for quality improvement and preservation of fluid quality;
- certified by international certification bodies;
- various measurement devices and tools.



SPIROVENT®

Deaerators

- remove circulating air bubbles;
- remove trapped air;
- reliable and leak-free;
- constant low pressure drop.



SPIROCOMBI®

Deaerator & dirt separators

- air-free and dirt-free installation fluid with 1 device;
- also remove the tiniest particles;
- maintenance only takes seconds.



SPIROCARE®

Analysis and advice

- for installation fluids and fluid installations;
- extensive expertise;
- experience in a wide variety of processes.



SPIROVENT® Superior

Vacuum degassers

- plug & play;
- remove dissolved gases;
- energy-efficient.



SPIROCROSS®

Hydraulic separators

- integrated air and dirt separation;
- 3 functions in 1 device;
- minimal fluid mixing.



SPIROPRESS®

Pressurisation and degassing

- hydronic stability for optimal system performance;
- design support available;
- separate literature available for detailed product information.



SpiroLife

Spirotech's Exceptional Guarantee Terms!

"Spirotech's total solutions: improved efficiency, fewer malfunctions, less maintenance and reduced energy consumption."



SpiroTop - automatic air vents

Free air accumulates in the highest parts of a system. SpiroTop automatic air vents have been specially developed to remove this air quickly and efficiently. SpiroTop also ensures fast and reliable air admittance when draining systems.

The SpiroTop is the reliable and worry-free solution ideal for:

- filling and venting systems;
- making and keeping the high points in pipe systems air-free;
- preventing air pockets from forming.

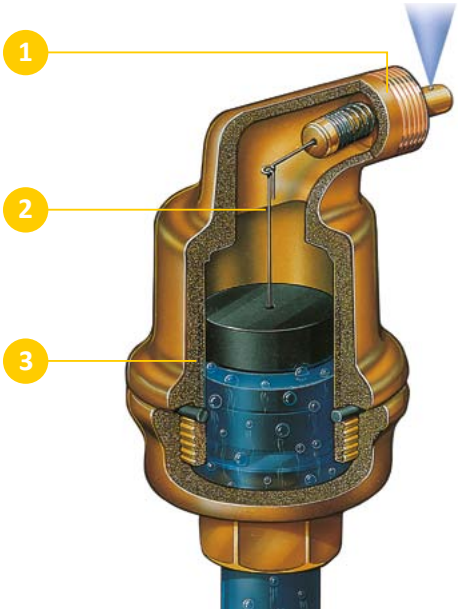
Benefits of SpiroTop

The combination of the characteristics listed below ensures that the automatic SpiroTop will not leak during its very long life:

- The special valve construction means that the valve closes completely.
- The special valve seat has a very long life expectancy.
- The robust floats are made of solid plastic so cannot rupture.
- The significant gap between the valve and the water (at least 40 mm) prevents valve contamination which is one of the main causes of leaks.
- The ½" connection prevents the pipette effect.
- A complete range, suitable for various pressures and temperatures.
- Exceptional guarantee.

SPIRO life EXCEPTIONAL GUARANTEE 3

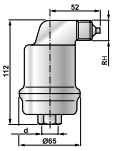
"SpiroTop: fast and reliable automatic venting."



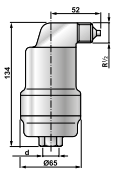
1. The automatic air vent will not leak and cannot be closed.
2. Specially constructed air chamber prevents floating dirt from reaching the valve and provides sufficient volume to absorb pressure fluctuations.
3. The solid construction guarantees a very long life.

Type	d	Material	Float material	Max. operating pressure	Max. temperature	Article number
SpiroTop	G½	Brass	PP	10 bar	110°C	AB050
SpiroTop HT	G½	Brass	TPX	10 bar	180°C	AB050/002
SpiroTop HT	G½	Brass	AISI 316	10 bar	180°C	AB050/007
SpiroTop Solar	G½	Brass	TPX	10 bar	180°C	AB050/008
SpiroTop Solar AutoClose	G½	Brass	TPX	10 bar	180°C	AB050FBA08
SpiroTop HP/HT	G½	Brass	TPX	25 bar	150°C	AB050/025
SpiroTop HP	G½	Brass	PP	16 bar	110°C	AB050/030
SpiroTop HT RVS	G½	AISI 316	TPX	10 bar	180°C	AB050/R002
SpiroTop HP/HT RVS	G½	AISI 316	TPX	25 bar	200°C	AB050/R004
SpiroTop HT RVS	G½	AISI 316	AISI 316	10 bar	180°C	AB050/R007

Other materials, pressures and temperatures are available on request.



10 bar



16 and 25 bar

For a completely air-free system, you need to install SpiroVent deaerators or vacuum degassers as well as SpiroTop air vents.

SPIROTECH FOR BETTER PERFORMANCE



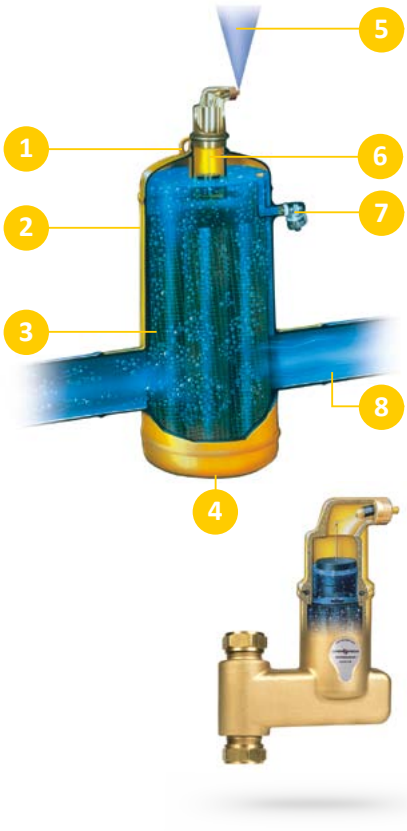
SpiroVent - micro bubble deaerators

SpiroVent micro bubble deaerators are installed inline and continuously remove free air and micro bubbles from the system fluid.

Benefits of SpiroVent

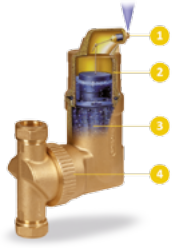
- Removes circulating air and micro bubbles effectively.
- Removes trapped air.
- Greatly reduces commissioning times and manual venting is much faster.
- Constant low pressure drop.
- No unnecessary shutdown.
- Connection diameters from ¾" to DN 600 and above.
- A complete range, suitable for various pressures and temperatures.
- Exceptional guarantee.

A SpiroVent deaerator is preferably to be installed at the hottest point within a system. In the case of a heating system, for example, this is the point where the water exits the boiler. In the case of a cooling system, it is in the return before the chiller unit.



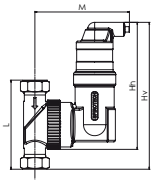
1. Lifting eyes make installation of bigger units very easy.
2. Solid construction guarantees a very long life.
3. The unique Spirotube is the heart. This component has been specially designed for optimum separation of air and micro bubbles and yet offers very low flow resistance.
4. Drain plug on steel units. Also suitable for connecting a drain valve, temperature sensor or pressure sensor.
5. The automatic air vent will not leak and cannot be closed. Many models come with thread for connecting a vent pipe as standard.
6. Specially constructed air chamber prevents floating dirt from reaching the valve and provides sufficient volume to absorb pressure fluctuations.
7. Drain valve on steel units for admitting or releasing large amounts of air (when filling or emptying the system) and for removing floating dirt.
8. Many different connection options. Brass with compression fittings or female thread, horizontal and vertical. Steel with weld ends or flanges.

SPIROVENT® RV2 The right twist on ease of installation



1. High quality, leak-proof air release valve.
2. Specially constructed air chamber provides sufficient volume to absorb pressure fluctuations and prevents valve contamination.
3. The unique Spirotube offers very low flow resistance.
4. Rotating connector enabling the unit to be mounted in both horizontal and vertical, and even diagonal, pipes.

Technical specifications SpiroVent RV2		
Connector (D)	22 mm comp.	28 mm comp.
Max. flow [l/sec]	0.35	0.55
Volume [l]	0.18	0.18
Weight [kg]	1,75	1,8
Dimension Hv [mm]	205	205
Dimension Hh [mm]	177	177
Dimension L [mm]	120	120
Dimension M [mm]	125	125
Article number	UA022W	UA028W



Connection (d)	H [mm]	h [mm]	L [mm]	Max. flow [m³/h]	Max. flow [l/s]	Δp at max. flow [kPa]	Article number
22 mm. comp.	153	20	106	1,3	0,35	1,3	AA022
22 mm. comp. V	220	-	104	1,3	0,35	1,5	AA022V
G ¾	153	25	85	1,3	0,35	1,3	AA075
G ¾V	210	-	84	1,3	0,35	1,5	AA075V
G1	180	35	88	2,0	0,55	1,3	AA100
G1V	210	-	84	2,0	0,55	2,4	AA100V
G1¼	200	40	88	3,6	1,0	1,3	AA125
G1½	234	42	88	5,0	1,4	1,3	AA150
G2	275	58	132	7,5	2,1	1,4	AA200

V= Vertical connection
Operating pressure 0 - 10 bar

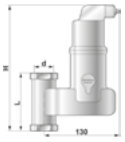
Flow velocity ≤ 1m/s
Fluid temperature 0 - 110°C

Other sizes, materials, pressures and temperatures are available on request.





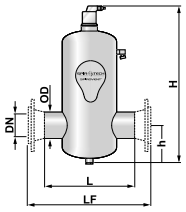
Brass, horizontal: 22 mm to 2”





Brass, vertical: 22 mm to 1”

					Standard; nom. 1,5 m/s								Hi-flow; nom. 3 m/s				
						nom. = 1,5 m/s			max. = 3 m/s								
Connection [DN]	Connection OD [mm]	L [mm]	LF [mm]	h [mm]	H [mm]	Max. flow [l/s]	Max. flow [m³/h]	Δp at max. flow [kPa]	Max. flow [l/s]	Max. flow [m³/h]	Δp at max. flow [kPa]	Article number*	H [mm]	Max. flow [l/s]	Max. flow [m³/h]	Δp at max. flow [kPa]	Article number*
050	60	260	350	115	470	3,5	12,5	3,0	7	25	11,8	BA050	630	7	25	11,8	HA050
065	76	260	350	125	470	5,5	20	2,7	11	40	11,6	BA065	630	11	40	11,6	HA065
080	89	370	470	150	590	7,5	27	2,9	15	54	12,4	BA080	785	15	54	12,4	HA080
100	114	370	475	160	590	13	47	3,7	26	94	14,6	BA100	785	26	94	14,6	HA100
125	140	525	635	205	765	20	72	4,2	40	144	16,8	BA125	1045	40	144	16,8	HA125
150	168	525	635	220	765	30	108	4,9	60	215	19,4	BA150	1045	60	215	19,4	HA150
200	219	650	775	275	975	50	180	5,8	100	360	23,1	BA200	1315	100	360	23,1	HA200
250	273	750	890	330	1215	80	288	6,9	160	575	27,7	BA250	1715	160	575	27,7	HA250
300	324	850	1005	385	1430	113	405	7,7	225	810	31,0	BA300	2025	225	810	31,0	HA300



Operating pressure: 0 - 10 bar
Fluid temperature 0 - 110°C
Other sizes, materials, pressures and temperatures are available on request.

* for weld ends add L (e.g. HA200L)
for flanges add F (e.g. HA200F)

Standard vs. Hi-flow

Standard steel SpiroVent products are designed for a nominal flow velocity up to 1.5 m/s. At higher velocities the increased turbulence will not always leave sufficient separation zone in a standard unit for optimal separation. Exceeding the nominal flow will also lead to a substantially increased pressure drop. For structural higher flow velocities (up to 3 m/s) a Hi-flow type is recommended.

Select the correct SpiroVent:

1. Determine the pipe diameter. 2. Determine the flow. 3. Determine the correct model using the table.

	Max. flow m³/h & l/s																												Applicable SpiroVent	
m³/h	12,5	20	25	27	40	47	54	72	94	108	144	180	215	288	360	405	500	575	650	810	850	1000	1060	1300	1530	1700	2120	3000	Standard	Hi-flow
l/s / Ø	3,5	5,5	7	7,5	11	13	15	20	26	30	40	50	60	80	100	113	140	160	180	225	235	280	295	360	425	470	590	835		
DN050																													BA050	HA050
DN065																													BA065	HA065
DN080																													BA080	HA080
DN100																													BA100	HA100
DN125																													BA125	HA125
DN150																													BA150	HA150
DN200																													BA200	HA200
DN250																													BA250	HA250
DN300																													BA300	HA300
DN350																													BA350	HA350
DN400																													BA400	HA400
DN450																													BA450	HA450
DN500																													BA500	HA500
DN600																													BA600	HA600

= standard model at nominal flow (1,5 m/s)
= standard model at maximum flow (3 m/s), hi-flow recommended
= choose bigger ∅ or lower the flow

By choosing a larger connection size the same flow rate will be achieved but with a lower flow velocity resulting in better separation efficiency and a lower pressure drop (less energy consumption).



Standard: DN 50 to DN 600



Hi-flow: DN 50 to DN 600



SpiroVent Superior - vacuum degassers

The SpiroVent Superior is a fully automatic vacuum degasser for heating, cooling and process systems. Because of the fully electronic control system, the Superior offers numerous facilities for reading system information, status and logged data.

When should a vacuum degasser be used?

1. For systems with many branches and a low flow velocity.
2. When the system is operating with a small temperature difference. A vacuum degasser is not dependent on the fluid temperature.
3. When an inline degasser cannot be mounted due to practical reasons. A vacuum degasser can be connected to virtually any point within a system.
4. When the static height above the hottest point exceeds the critical height according to graph opposite.



Benefits of SpiroVent Superior

- Removes dissolved gases.
- Absorptive fluid also ensures the removal of trapped gas bubbles.
- Plug & play and greatly reduced commissioning and delivery times.
- Energy-efficient thanks to SmartSwitch.
- Degassed (re)filling and sustained pressure.
- Protected against accidental refilling.
- An extensive range for a wide variety of systems.
- Works perfectly in combination with all common expansion systems.
- Two-year guarantee.

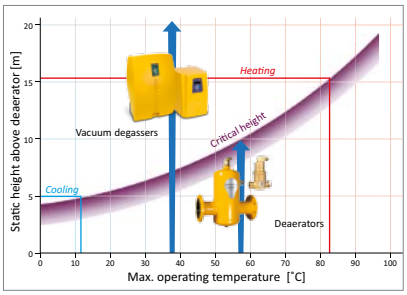
SPIRO life 2 EXCEPTIONAL GUARANTEE

How the SpiroVent Superior works

A continuously operating pump constantly takes a quantity of system fluid from the circulating flow. Closing a solenoid valve creates a vacuum so that the dissolved gases are released. These accumulate at the top of the vessel and are removed via the air vent. The degassed and absorptive fluid is then pumped back into the installation and can start absorbing gases again. There are various reasons why gas will always be able to enter a system. Therefore, vacuum degassing is a not a one-off process but a continuous requirement.

Static height and temperature

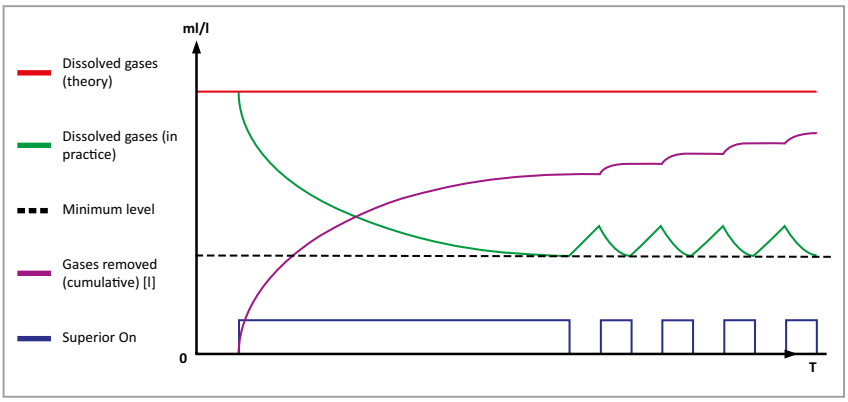
In case of an excessive static head (pressure) above a deaerator, dissolved air cannot be released from the fluid. In these circumstances it is very hard to predict where in the system air bubbles will emerge from the fluid. Apart from that, the point where micro bubbles emerge can change depending fluid temperature and hydrostatic pressure (Henry's Law). Rule of thumb for maximal static height: heating ≤ 15 m, cooling ≤ 5 m. Above the critical height, a vacuum degasser generally is a more effective solution. For custom made advice please contact us.



The Superior can be used as:

- degasser without refilling or pressure maintenance;
- degasser which monitors pressure and refills;
- degasser, which refills based on an external signal.

"SpiroVent Superior: the vacuum degasser with multiple options for reading system information."



This is a simplified graph showing measurements taken from various systems in practice. During initial degassing and after initial commissioning or when restarting a system, the gas level is reduced to the minimum level. The Superior then switches itself off and the gas level slowly increases again. By switching on the Superior at set intervals, the gas level is kept at the minimum level so that problems are prevented.



S4, for heating and cooling systems up to 4,5 bar, 25 m^3



S6, for heating and cooling systems up to 6 bar, 300 m^3



S10, for heating or cooling systems from 5 to 10 bar, 300 m^3
S16, for heating or cooling systems from 9 tot 16 bar, 300 m^3

Energy-efficient thanks to SmartSwitch

As soon as any gases are removed, it is registered by the integrated SmartSwitch. If the SmartSwitch has not registered anything for ten minutes, it means that the quantity of dissolved gases in the fluid has reached the minimum value. The degassing process will then stop automatically and start again at the next pre-set time. So the device is only operated when necessary. As a result, energy consumption is reduced considerably and the life of costly components is extended significantly.

	S4A	S4A-R	S6A	S6A-R	S6A-R2P	S10A	S10A-R	S16A	S16A-R
Max. system volume [m^3]	25	25	300	300	300	300	300	300	300
System pressure [bar]	1 - 4,5 1)	1 -4,5 1)	1 - 6	1 - 6	1 - 6	5 -10	5 - 10	9 - 16	9 - 16
Temperature of system fluid [°C]	0 - 90 2)	0 - 90 2)	0 - 90	0 - 90	0 - 90	0 - 90	0 - 90	0 - 90	0 - 90
Fluid treated (degassed) [l/h]	70	70	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Max. refill volume [l/u] 3)	n/a	50	n/a	500	500	n/a	600	n/a	550
Refill pressure [bar]	n/a	≥ 0,5	n/a	0 - 6	0 - 6	n/a	0 - 10	n/a	0 - 10
Ambient temperature [°C]	0 - 40	0 - 40	0 - 40	0 - 40	0 - 40	0 - 40	0 - 40	0 - 40	0 - 40
Dimensions [HxWxD]	490x340x340	490x340x340	880x590x350	880x590x350	880x590x350	1272x744x400	1272x744x400	1272x744x400	1272x744x400
Noise level [dB(A)]	52	52	57	57	57	57	57	57	57
Empty weight [kg]	15	16	58	59	68	80	90	82	92
Supply voltage at 50 Hz [V] 4)	230 ± 10%	230 ± 10%	230 ± 10%	230 ± 10%	230 ± 10%	3 x 400	3 x 400	3 x 400	3 x 400
Power consumption at 50 Hz [Watt] 4)	100	100	1150	1150	1650	2250	2250	3050	3050
Degree of protection [IP]	X 4D	X 4D	X 4D	X 4D	X 4D	X 4D	X 4D	X 4D	X 4D
Notification "in operation" to BMS	n/a	n/a	volt-free	volt-free	volt-free	volt-free	volt-free	volt-free	volt-free
Failure notification to BMS	volt-free	volt-free	volt-free	volt-free	volt-free	volt-free	volt-free	volt-free	volt-free
Superior run/stop by BMS	n/a	n/a	24 VAC (in)	24 VAC (in)	24 VAC (in)	24 VAC (in)	24 VAC (in)	24 VAC (in)	24 VAC (in)
Refill on/off by BMS	n/a	n/a	n/a	24 VAC (in)	24 VAC (in)	n/a	24 VAC (in)	n/a	24 VAC (in)
Refill on/off by external device	n/a	5 VDC (out)	n/a	5 VDC (out)	5 VDC (out)	n/a	5 VDC (out)	n/a	5 VDC (out)
Article number 50 Hz	MA04A50	MA04R50	MA06A50W	MA06R50W	MA06P50W	MA10A50W	MA10R50W	MA16A50W	MA16R50W
Article number 60 Hz	MA04A60	MA04R60	MA06A60W	MA06R60W	MA06P60W	MA10A60W	MA10R60W	MA16A60W	MA16R60W

1) At 50 Hz; 60 Hz = 1,5 - 4,5 bar
2) At ≤ 4 bar; > 4 bar = 0 - 70
3) An approved non-return protective device (G¾" male) is available as an option
4) Data for 60 Hz on request

Special insulated versions of the S6, the S10 and the S16 are available for cooling applications.

SpiroVent Superior vacuum degassers are suitable for water and water/glycol mixtures (S4 max. 50%, S6/S10/S16 max. 40%). Not suitable for drinking water installations.

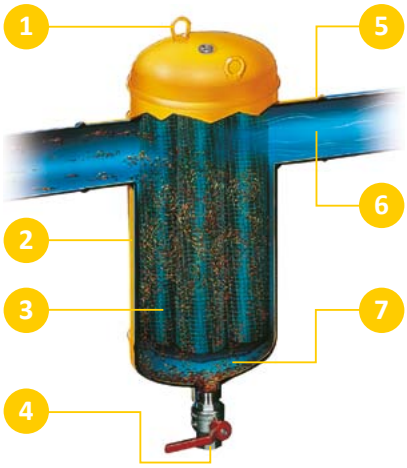


SpiroTrap - dirt separators

Spirotech offers an extensive range of SpiroTrap dirt separators, especially designed for the removal of dirt. Separates and removes even the smallest particles (from 5 µm = 0.005 mm).

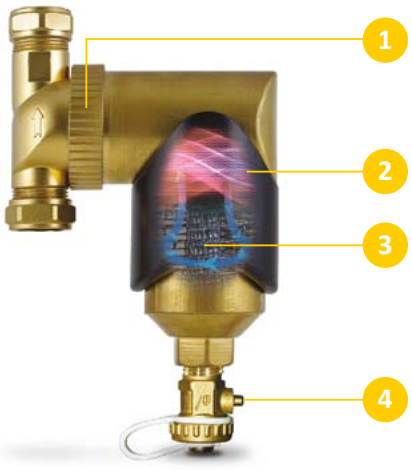
Benefits of SpiroTrap

- Very small particles, from 5 µm (= 0.005 mm) are separated and removed.
- Dirt can be discharged while the system is in operation.
- No shut-off valves or bypass required.
- Constant low pressure drop.
- Maintenance only takes a few seconds.
- No unnecessary shutdown.
- Connection diameters from ¾" to DN 600 and above.
- A complete range, suitable for various pressures and temperatures.
- Exceptional guarantee.



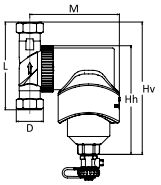
1. Lifting eyes make installation of bigger units very easy.
2. Solid construction guarantees a very long life.
3. The unique Spirotube is the heart. This component has been specially designed for optimum dirt separation and has a very low flow resistance.
4. Drain valve for removing collected dirt.
5. Many different connection options. Brass with compression fittings or female thread, horizontal and vertical. Steel with welded ends or flanges.
6. The flow is not obstructed by the collected dirt.
7. Large capacity dirt collection chamber reduces the need for frequent draining.

SPIROTRAP® MB3 With unique magnetic field booster technology

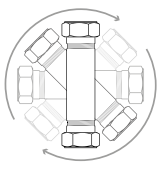


1. Twist-release ring to easily rotate fitting to desired angle.
2. Removable external magnet with unique magnet field boosting technology.
3. The unique Spirotube is the heart. This component has been specially designed for optimum dirt separation and has a very low flow resistance.
4. Drain valve for removing collected dirt.

Technical specifications SpiroTrap MB3				
Connection (D)	22 mm comp.	28 mm comp.	Rp ¾	Rp 1
Max. flow [l/sec]	0,35	0,55	0,35	0,55
Volume [l]	0,36	0,39	0,36	0,39
Weight [kg]	2,2	2,3	2,2	2,3
Dimension Hv [mm]	177	177	162	162
Dimension Hh [mm]	148	148	148	148
Dimension L [mm]	112	112	90	90
Dimension M [mm]	122	126	124	128
Article number	UE022WJ	UE028WJ	UE075WJ	UE100WJ



Universal model



Rotating fitting mechanism

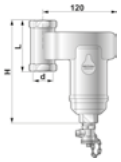
Connection (d)	H [mm]	h [mm]	L [mm]	Max. flow [m³/h]	Max. flow [l/s]	Δp at max. flow [kPa]	Article number
22 mm. comp.	116	20	106	1,3	0,35	1,3	AE022
22 mm. comp. V	182	-	104	1,3	0,35	1,5	AE022V
G ¾	116	25	85	1,3	0,35	1,3	AE075
G ¾V	172	-	84	1,3	0,35	1,5	AE075V
G1	143	35	88	2,0	0,55	1,3	AE100
G1V	172	-	84	2,0	0,55	2,4	AE100V
G1¼	161	40	88	3,6	1,0	1,3	AE125
G1½	197	42	88	5,0	1,4	1,3	AE150
G2	238	58	132	7,5	2,1	1,4	AE200

V = Vertical connection
Operating pressure: 0 - 10 bar

Flow velocity ≤ 1 m/s
Fluid temperature 0 - 110°C

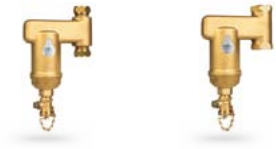
Other sizes, materials, pressures and temperatures are available on request







Brass, horizontal: 22 mm up to 2"



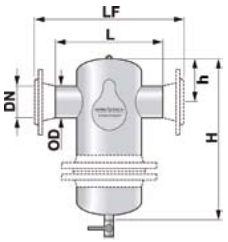
Brass, vertical: 22 mm up to 1"

					Standard; nom. 1,5 m/s									Hi-flow; nom. 3 m/s					
						nom. = 1,5 m/s			max. = 3 m/s										
Connection [DN]	Connection [mm]	L [mm]	LF [mm]	h [mm]	H [mm]	Max. flow [l/s]	Max. flow [m³/h]	Δp at max. flow [kPa]	Max. flow [l/s]	Max. flow [m³/h]	Δp at max. flow [kPa]	Article nummer*	Article no. Demountable*	H [mm]	Max. flow [l/s]	Max. flow [m³/h]	Δp at max. flow [kPa]	Article number*	Article no. Demountable*
050	60	260	350	125	395	3,5	12,5	3,0	7	25	11,8	BE050	BF050	555	7	25	11,8	HE050	HF050
065	76	260	350	135	395	5,5	20	2,7	11	40	11,6	BE065	BF065	555	11	40	11,6	HE065	HF065
080	89	370	470	160	515	7,5	27	2,9	15	54	12,4	BE080	BF080	710	15	54	12,4	HE080	HF080
100	114	370	475	170	515	13	47	3,7	26	94	14,6	BE100	BF100	710	26	94	14,6	HE100	HF100
125	140	525	635	215	690	20	72	4,2	40	144	16,8	BE125	BF125	970	40	144	16,8	HE125	HF125
150	168	525	635	230	690	30	108	4,9	60	215	19,4	BE150	BF150	970	60	215	19,4	HE150	HF150
200	219	650	775	285	900	50	180	5,8	100	360	23,1	BE200	BF200	1240	100	360	23,1	HE200	HF200
250	273	750	890	345	1145	80	288	6,9	160	575	27,7	BE250	BF250	1645	160	575	27,7	HE250	HF250
300	324	850	1005	405	1360	113	405	7,7	225	810	31,0	BE300	BF300	1955	225	810	31,0	HE300	HF300

Operating pressure 0 - 10 bar
Fluid temperatuur 0 - 110°C
Other sizes, materials, pressures and temperatures are available on request

* For weld ends add L (e.g. BE200L)
For flanges add F (e.g. BE200F)

A SpiroTrap dirt separator is preferably to be installed in the main return pipe.



Standard vs. Hi-flow

Standard steel SpiroTrap products are designed for a nominal flow velocity up to 1.5 m/s. At higher velocities the increased turbulence will not always leave sufficient separation zone in a standard unit for optimal separation. Exceeding the nominal flow will also lead to a substantially increased pressure drop. For structural higher flow velocities (up to 3 m/s) a Hi-flow type is recommended.

Select the correct SpiroTrap:

1. Determine the pipe diameter. 2. Determine the flow. 3. Determine the correct model using the table.

	Max. flow m³/h and l/s																													Applicable SpiroTrap	
m³/h	12,5	20	25	27	40	47	54	72	94	108	144	180	215	288	360	405	500	575	650	810	850	1000	1060	1300	1530	1700	2120	3000		
l/s / Ø	3,5	5,5	7	7,5	11	13	15	20	26	30	40	50	60	80	100	113	140	160	180	225	235	280	295	360	425	470	590	835	Standard	Hi-flow
DN050																													BE/BF050	HE/HF050
DN065																													BE/BF065	HE/HF065
DN080																													BE/BF080	HE/HF080
DN100																													BE/BF100	HE/HF100
DN125																													BE/BF125	HE/HF125
DN150																													BE/BF150	HE/HF150
DN200																													BE/BF200	HE/HF200
DN250																													BE/BF250	HE/HF250
DN300																													BE/BF300	HE/HF300
DN350																													BE/BF350	HE/HF350
DN400																													BE/BF400	HE/HF400
DN450																													BE/BF450	HE/HF450
DN500																													BE/BF500	HE/HF500
DN600																													BE/BF600	HE/HF600

= standaarduitvoering at nominale doorstroomsnelheid (1,5 m/s)
= standaarduitvoering at maximale doorstroomsnelheid (3 m/s), Hi-flow aanbevolen
= kies grotere Ø of verlaag flow

By choosing a larger connection size the same flow rate will be achieved but with a lower flow velocity resulting in better separation efficiency and a lower pressure drop (less energy consumption).

Demountable

If the level of contamination is such that it needs to be possible to replace or clean the separating element (Spirotube assembly), the demountable model can be chosen.

Magnetic

Also available: separators with internal magnet. Separate literature available.



Standard: DN 50 up to DN 600
Hi-flow: DN 50 up to DN 600



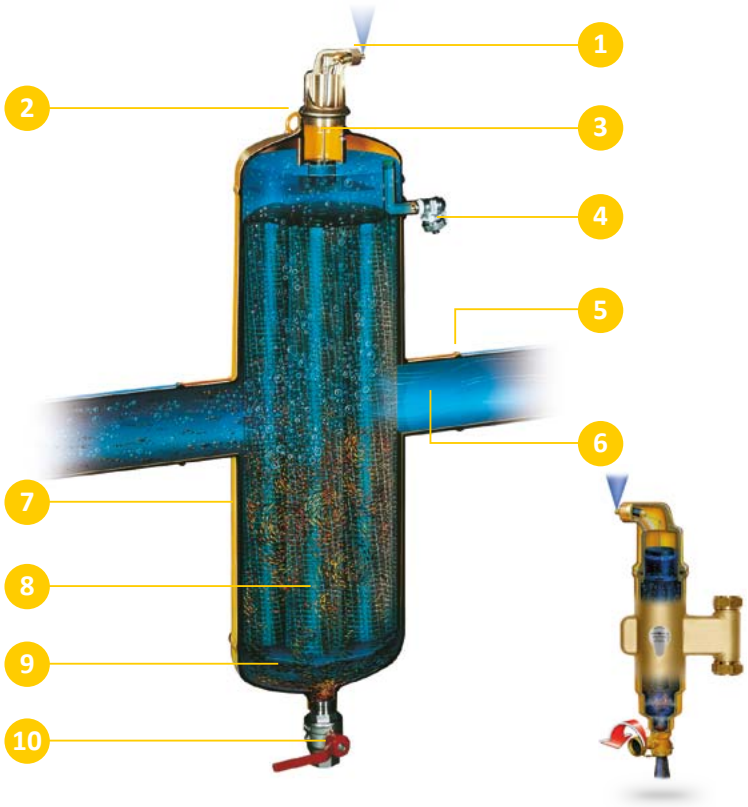
Demountable: DN 50 to DN 600
Hi-flow demountable: DN 50 to DN 600



SpiroCombi - deaerators and dirt separators

Spirotech offers an extensive range of SpiroCombi deaerators/dirt separators, especially designed for the simultaneous removal of air and dirt. These remove air, micro bubbles and dirt particles from the system water continuously.

When the drain valve is opened, the dirt collected is discharged quickly and effectively. This action - opening and closing the valve - only takes a few seconds.



1. The automatic air vent will not leak and cannot be closed. Many models come with thread for connecting a vent pipe as standard.
2. Lifting eyes make installation of bigger units very easy.
3. Specially constructed air chamber prevents floating dirt from reaching the valve and provides sufficient volume to absorb pressure fluctuations.
4. Drain plug on steel units for admitting or releasing large amounts of air (when filling or emptying the system) and for removing floating dirt.
5. Many different connection options. Brass with compression fittings or female thread, horizontal and vertical. Steel with welded ends or flanges.
6. The flow is not obstructed by the collected dirt.
7. Solid construction which guarantees an extremely long life.
8. The unique Spirotube is the heart. This component has been specially designed for optimum separation of air and dirt and has a very low flow resistance.
9. Large capacity dirt collection chamber reduces the need for frequent draining.
10. Drain valve for removing accumulated dirt.

Benefits of SpiroCombi

- Removes circulating air and micro bubbles effectively.
- Very small particles, from 5 µm (= 0.005 mm), are separated and removed.
- Dirt can be discharged while the system is in operation.
- No shut-off valves or bypass required.
- Constant low pressure drop.
- Exceptional guarantee.

See also “Static height and temperature” at page 8.



Brass, horizontal: 22 mm and 1”

Brass, vertical: 22 mm

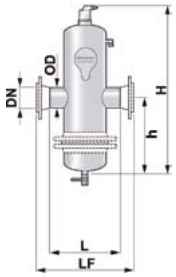
Connection (d)	H [mm]	h [mm]	L [mm]	Max. flow [m³/h]	Max. flow [l/s]	Δp at max. flow [kPa]	Article number
22 mm. comp.	257	145	106	1,3	0,35	1,3	AC022
22 mm. comp. V	246	-	97	1,3	0,35	1,7	AC022V
G1	257	145	88	2,0	0,55	1,3	AC100

V = Vertical connection
Operating pressure: 0 - 10 bar
Flow velocity ≤ 1m/s
Fluid temperature 0 - 110°C
Other sizes, materials, pressures and temperatures are available on request

				Standard; nom. 1,5 m/s									Hi-flow; nom. 3 m/s						
						nom. = 1,5 m/s			max. = 3 m/s										
Connection [DN]	Connection OD [mm]	L [mm]	LF [mm]	H [mm]	h [mm]	Max. flow [l/s]	Max. flow [m³/h]	Δp at max. flow [kPa]	Max. flow [l/s]	Max. flow [m³/h]	Δp at max. flow [kPa]	Article number*	Article no. Demountable*	H [mm]	h [mm]	Max. flow [l/s]	Max. flow [m³/h]	Δp at max. flow [kPa]	Article number*	Article no. Demountable*
050	60	260	350	630	265	3,5	12,5	3,0	7	25	11,8	BC050	BD050	910	405	7	25	11,8	HC050	HD050
065	76	260	350	630	265	5,5	20	2,7	11	40	11,6	BC065	BD065	910	405	11	40	11,6	HC065	HD065
080	89	370	470	785	345	7,5	27	2,9	15	54	12,4	BC080	BD080	1145	525	15	54	12,4	HC080	HD080
100	114	370	475	785	345	13	47	3,7	26	94	14,6	BC100	BD100	1145	525	26	94	14,6	HC100	HD100
125	140	525	635	1045	480	20	72	4,2	40	144	16,8	BC125	BD125	1570	745	40	144	16,8	HC125	HD125
150	168	525	635	1045	480	30	108	4,9	60	215	19,4	BC150	BD150	1570	745	60	215	19,4	HC150	HD150
200	219	650	775	1315	615	50	180	5,8	100	360	23,1	BC200	BD200	1995	955	100	360	23,1	HC200	HD200
250	273	750	890	1715	815	80	288	6,9	160	575	27,7	BC250	BD250	2680	1295	160	575	27,7	HC250	HD250
300	324	850	1005	2025	970	113	405	7,7	225	810	31,0	BC300	BD300	3190	1550	225	810	31,0	HC300	HD300

Operating pressure: 0 - 10 bar
Fluid temperature 0 - 110°C
Other sizes, materials, pressures and temperatures are available on request.

* for weld ends add L (e.g. BC200L)
for flanges add F (e.g. BC200F)



Standard vs. Hi-flow

Standard steel SpiroCombi products are designed for a nominal flow velocity up to 1.5 m/s. At higher velocities the increased turbulence will not always leave sufficient separation zone in a standard unit for optimal separation. Exceeding the nominal flow will also lead to a substantially increased pressure drop. For structural higher flow velocities (up to 3 m/s) a Hi-flow type is recommended.

Select the correct SpiroCombi:

1. Determine the pipe diameter. 2. Determine the flow. 3. Determine the correct model using the table.

	Max. flow m³/h & l/s																												Applicable SpiroCombi	
m³/h	12,5	20	25	27	40	47	54	72	94	108	144	180	215	288	360	405	500	575	650	810	850	1000	1060	1300	1530	1700	2120	3000	Standard	Hi-flow
l/s / Ø	3,5	5,5	7	7,5	11	13	15	20	26	30	40	50	60	80	100	113	140	160	180	225	235	280	295	360	425	470	590	835		
DN050																													BC/BD050	HC/HD050
DN065																													BC/BD065	HC/HD065
DN080																													BC/BD080	HC/HD080
DN100																													BC/BD100	HC/HD100
DN125																													BC/BD125	HC/HD125
DN150																													BC/BD150	HC/HD150
DN200																													BC/BD200	HC/HD200
DN250																													BC/BD250	HC/HD250
DN300																													BC/BD300	HC/HD300
DN350																													BC/BD350	HC/HD350
DN400																													BC/BD400	HC/HD400
DN450																													BC/BD450	HC/HD450
DN500																													BC/BD500	HC/HD500
DN600																													BC/BD600	HC/HD600

= standard model at nominale flow (1,5 m/s)
= standard model at maximum flow (3 m/s), Hi-flow recommended
= choose bigger Ø or lower the flow

By choosing a larger connection size the same flow rate will be achieved but with a lower flow velocity resulting in better separation efficiency and a lower pressure drop (less energy consumption).

Demountable

If the level of contamination is such that it needs to be possible to replace or clean the separating element (Spirotube assembly), the demountable model can be chosen.

Magnetic

Also available: separators with internal magnet. Separate literature available.



Standard: DN 50 up to DN 600
Hi-flow: DN 50 up to DN 600



Demountable: DN 50 up to DN 600
Hi-flow demountable: DN 50 to DN 600

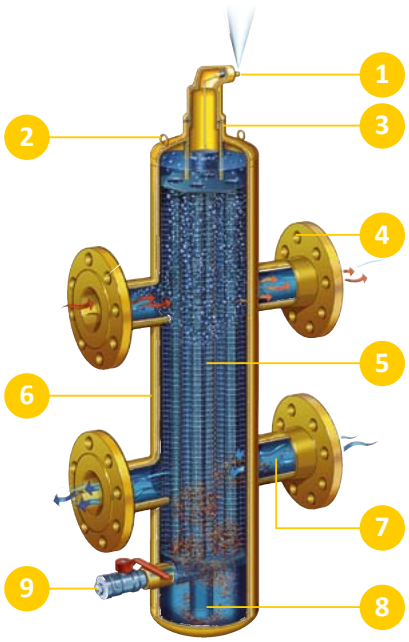


SpiroCross - hydraulic deaerators and dirt separators

A good hydraulic balance is highly important for HVAC and process systems with separated circuits or several groups and pumps. The effective removal of air and dirt also contributes towards the achievement of optimum system performance. Hydraulic balancing and air and dirt separation are combined in the compact SpiroCross.

Thanks to the combination of 3 functions in 1, compact unit savings will not only be made in purchasing but also on installation and maintenance costs. The SpiroCross can be used for both new build projects and for renovating heating, cooling and process systems.

SpiroCross was developed by Spirotech using Computational Fluid Dynamics and was also tested extensively on our own TÜV-certified test and measurement set-up and in various systems in practice.





When the drain valve is opened, the dirt collected is discharged quickly and effectively.

1. The automatic air vent will not leak and cannot be closed.
2. Lifting eyes make installation of bigger units very easy.
3. Specially constructed air chamber prevents floating dirt from reaching the valve and provides sufficient volume to absorb pressure fluctuations.
4. Many connection sizes. Brass with flat face swivels, steel with weld ends or flanges.
5. The unique Spirotube ensures optimum fluid mixing.
6. Solid construction which guarantees an extremely long life.
7. The flow is not obstructed by the dirt collected.
8. Large capacity dirt collection chamber.
9. Drain valve for removing accumulated dirt.



"Three functions in a single compact appliance"

Benefits of SpiroCross

- Three functions in a single component.
- Just four connections instead of eight.
- Optimum hydraulic balance in the system.
- Spirotube guarantees minimal fluid mixing.
- Real, active deaeration and dirt separation.
- Even the tiniest air bubbles and dirt particles are separated and removed.
- Dirt can be discharged while the system is in operation.
- Constant low pressure drop.
- Compact design and limited built-in height, thanks to the Spirotube.
- Exceptional guarantee.



Specially made insulation sets are available for SpiroCross.

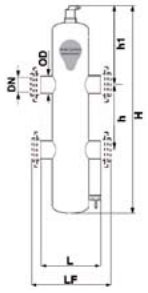
Deaeration and dirt separation in perfect balance

The unique Spirotube ensures active deaeration and dirt separation in a very compact design and guarantees a perfect balance with minimal fluid mixing. Although the Spirotube can trap the smallest micro bubbles and dirt particles, it has a very open structure which means that the SpiroCross does not clog up. The flow and the low pressure drop are not affected by the accumulated dirt, since it is collected outside the main flow.

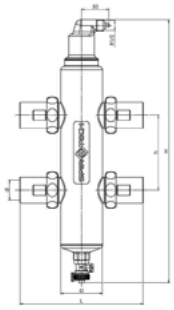
Trapped dirt can be discharged while the system is in operation. This saves a great deal of time and represents a major advantage over filters.

Technical specifications SpiroCross XC									
Article number*	**XC050**	**XC065**	**XC080**	**XC100**	**XC125**	**XC150**	**XC200**	**XC250**	**XC300**
Connection [DN]	50	65	80	100	125	150	200	250	300
Connection OD [mm]	60	76	89	114	140	168	219	273	324
H [mm]	815	905	999	1261	1546	1781	2321	2870	3388
h [mm]	240	305	360	460	560	670	870	1100	1295
h1 [mm]	337	349	369	450	543	606	776	935	1097
L [mm]	260	260	370	370	525	525	650	750	850
LF [mm]	350	350	470	475	635	635	775	890	1005
Primary Flow P at 1,5 m/s [m³/h]	12,5	20	27	47	72	108	180	288	405
Primary Flow P at 1,5 m/s [l/s]	3,5	5,5	7,5	13	20	30	50	80	113
Capacity (ΔT = 20°C) [kW]	294	462	630	1092	1680	2520	4200	6720	9450
Capacity (ΔT = 6°C) [kW]	88	139	189	328	504	756	1260	2016	2835
Volume [l]	12	13	29	38	105	123	252	501	859
Weight L [kg]	16	19	33	43	95	110	230	349	571
Weight F [kg]	26	31	49	60	119	140	274	413	656

* for weld ends add L (e.g. XC200L), for flanges add F (e.g. XC200F)



Technical specifications SpiroCross AX			
Article number*	**AX100**	**AX125**	**AX150**
Connection d (Rp) [“]	1	1 ¼	1 ½
H [mm]	515	515	515
h [mm]	144	144	144
D [mm]	80	80	80
L [mm]	236	236	236
Primary Flow P at 1 m/s [m³/h]	2,0	3,6	5,0
Primary Flow P at 1 m/s [l/s]	0,55	1,0	1,4
Capacity (ΔT = 20°C) [kW]	46	84	118
Capacity (ΔT = 6°C) [kW]	14	25	35
Volume [l]	1,5	1,5	1,5
Weight [kg]	6,5	6,5	6,5



The SpiroCross are suitable for water and water/glycol mixtures (max. 50%). They can be used in combination with locally approved chemical additives and inhibitors that are compatible with the materials applied within the system. Not suitable for drinking water.

The standard SpiroCross is suitable for a temperature range of 0 to 110 °C and for an operating pressure of 0 to 10 bar. From DN 050, the SpiroVent housing is made of unalloyed steel. The flange connection is PN 16. The housing of the 1”, 1¼” and 1½” is made of brass. Other sizes, materials, pressures and temperatures are available on request.

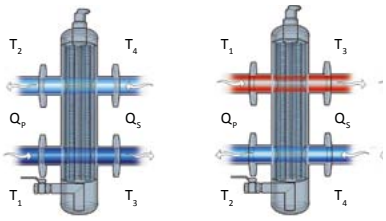
See also “Static height and temperature” at page 8.

How exactly does a hydraulic separator work?

A hydraulic separator absorbs the differences in volumetric flow between a primary circuit (supply = Qp) and a secondary circuit (demand = Qs). Three operating situations can occur if a hydraulic separator is installed in a system and these are shown below.

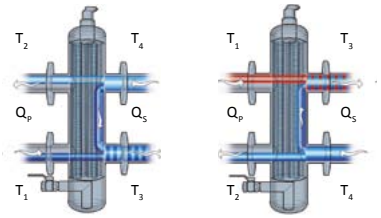
Cooling **Heating**

Situation 1: Qp = Qs ΔTp = ΔTs T2 = T4



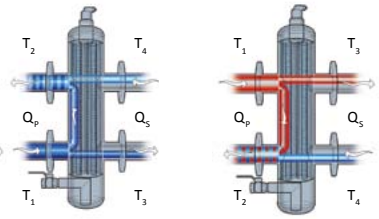
In this rare situation, supply and demand are exactly equal. This is the ideal situation in which the hydraulic separator is actually superfluous.

Situation 2: Qp < Qs ΔTp > ΔTs T2 = T4



In this situation, demand is greater than supply. This will cause the ΔT between T3 and T4 to drop. Some of the return water will join the supply, as a result of which it will take longer for the rooms to reach their set temperature. Where possible, the power of the boiler or cooler will then be increased.

Situation 3: Qp > Qs ΔTp < ΔTs T1 = T3



In the third situation, supply is greater than demand. This will cause the ΔT between T1 and T2 to drop. Some of the supply water will now join the return water, as a result of which the efficiency of the boiler or cooler will decrease. Where possible, the power will be modulated downwards.



SpiroPlus - Flushing agents and additives

Rules, regulations and preferences concerning additives for installation fluids are changing. An important goal is to improve the total system efficiency and by that reduce energy consumption. Another reason is that modern equipment is much more sensitive for the composition and the quality of the system fluid and the effects of it. A number of boiler manufacturers even set requirements regarding the fluid quality in connection to their guarantee conditions.

Protection from the inside

SpiroPlus products are developed especially for use in heating, cooling and process installations. Together with our first class hardware SpiroPlus products improve and maintain the quality of the installation fluid and by that the efficiency of the total installation or process.



SpiroPlus Mild Cleaner

Dirt dissolver

(flushing agent, pH-neutral)

Dirt occurs in every system and this can lead to annoying and costly consequences. SpiroPlus Mild Cleaner removes dirt particles and depositions from radiators, pipes and heat exchangers. Greatly suitable for a cleaning prior to the commissioning of a new installation.
For older and heavily contaminated systems, the use of SpiroPlus Power Cleaner is recommended.

Mixing ratio 1%



SpiroPlus Power Cleaner

Dirt dissolver

(flushing agent, pH-neutral)

Contaminations have a negative influence on system performance. SpiroPlus Power Cleaner is a powerful flushing agent that dissolves and removes persistent contaminations and depositions. The agent can be used in systems containing steel, brass, copper, plastic, hemp and liquid packing, for example.

Mixing ratio 1%



SpiroPlus Lime Cleaner

Descaler (flushing agent)

Tap water always contains calcium. This results in limescale in pipes and system components. SpiroPlus Lime Cleaner is an effective agent to remove limescale. It can be used in any water-carrying systems or appliances such as:

- central heating boilers and systems (Mixing ratio 10%)
- boilers; direct and indirect fired (Mixing ratio 50%)



SpiroPlus Sealer
Leak sealer

Small leaks will occur in any system, however well that system has been designed. Air will come into the system or fluid is lost from the system through capillary action. SpiroPlus Sealer is absorbed into the intermolecular spaces and forms an internal protective layer across the whole system. SpiroPlus Sealer has proved to be an effective agent for making underfloor heating systems gastight, for example.

Mixing ratio 0.4%



SpiroPlus Protector
Corrosion inhibitor

SpiroPlus Protector prevents limescale deposits and corrosion/pitting of all commonly used metals in a system, such as steel, copper and aluminium. This prevents the blocking of valves, pipes and radiators. The level of protection can be checked with special test strips.

Mixing ratio 1%



SpiroPlus AntiFreeze HC
Frost protector

Especially developed for heating and cooling installations. Stabilised and provided with a corrosion inhibiting protector.
SpiroPlus AntiFreeze HC is also suitable for use in pipes and polyethylene tubes used in underfloor heating systems, among other applications.

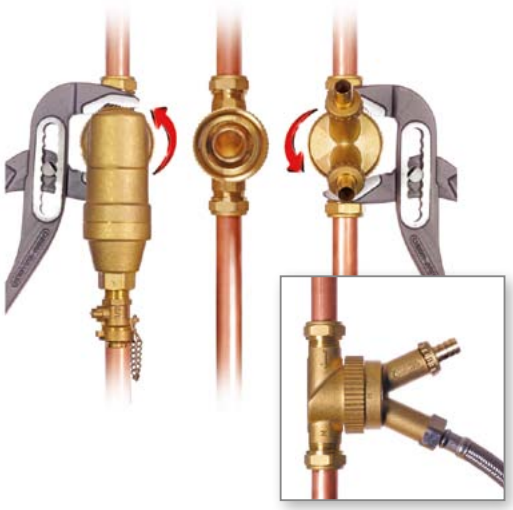
25% offers protection down to -10°C
35% offers protection down to -17°C
40% offers protection down to -22°C
50% offers protection down to -35°C

Custom made

For specific applications we also develop custom made additives. Our specialists can give you the best advice for every situation.

Flush connector

For flushing activities a special flush connector can be connected to the base of the SpiroVent RV2 and the SpiroTrap MB2 and MB3.



Product overview SpiroPlus		
	Quantity	Art. nr.
SpiroPlus Mild Cleaner Dirt dissolver (flushing agent, pH-neutral)	1 litre	CD001
SpiroPlus Mild Cleaner Dirt dissolver (flushing agent, pH-neutral)	2.5 litre	CD0025
SpiroPlus Mild Cleaner Dirt dissolver (flushing agent, pH-neutral)	10 litre	CD010
SpiroPlus Power Cleaner Dirt dissolver (flushing agent, pH-neutral)	1 litre	CC001
SpiroPlus Power Cleaner Dirt dissolver (flushing agent, pH-neutral)	10 litre	CC010
SpiroPlus Power Cleaner Dirt dissolver (flushing agent, pH-neutral)	200 litre	CC200
SpiroPlus Lime Cleaner Descaler (flushing agent)	1 litre	CL001
SpiroPlus Lime Cleaner Descaler (flushing agent)	2.5 litre	CL0025
SpiroPlus Lime Cleaner Descaler (flushing agent)	10 litre	CL010
SpiroPlus Lime Cleaner Descaler (flushing agent)	60 litre	CL060
SpiroPlus Sealer Leak sealer	1 litre	CS001
SpiroPlus Sealer Leak sealer	2.5 litre	CS0025
SpiroPlus Sealer Leak sealer	10 litre	CS010
SpiroPlus Protector Corrosion inhibitor	1 litre	CH001
SpiroPlus Protector Corrosion inhibitor	2.5 litre	CH0025
SpiroPlus Protector Corrosion inhibitor	10 litre	CH010
SpiroPlus AntiFreeze HC Frost protector	2.5 litre	CA0025/A10
SpiroPlus AntiFreeze HC Frost protector	10 litre	CA010/A10
SpiroPlus AntiFreeze HC Frost protector	60 litre	CA060/A10
SpiroPlus AntiFreeze HC Frost protector	200 litre	CA200/A10
Flush connector	1	CTF075



Solar applications

Air causes complaints, excessive wear, low efficiency and process interruptions. A solar system can even “boil dry”.

- Air accelerates the degeneration of the solar fluid that can thicken and clog to such an extent that the panel or even the entire system is damaged beyond repair.
- Air in the collectors can cause partial or total air locking. The collector is then unable to release any of the heat energy that it has stored and the efficiency savings from your Solar investment will be less than zero.
- The presence of air causes the build-up of dirt particles that will also go onto to significantly reduce system efficiencies and longevity of equipment.



AutoClose deaerators: open automatically whenever the situation allows, close automatically whenever necessary

To prevent vapour release, risk of burning and boiling dry, shut off valves are placed in solar systems. Spirotech offers solar products with the patented AutoClose function, which makes the valves redundant. Thanks to the AutoClose principle, it is now also possible for solar installations to remain permanently air free.

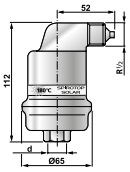


AutoClose benefits:

- prevents partial or total air locking;
- no premature degeneration of the solar fluid;
- system will not boil dry via the deaerator;
- no need to gain access to roof to provide manual venting;
- always an air free system with optimal efficiency;
- suitable for new and existing installations.

SpiroTop Solar

Type	Material	d	Float material	Max. temperature	Max. operating pressure	Weight [kg]	Article number	Article number AutoClose
SpiroTop Solar	Brass	G½	PP	180°C	10 bar	0,7	AB050/008	AB050FBA08

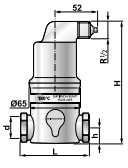


SpiroVent Solar

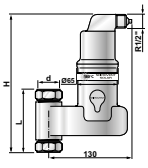
Connection (d)	H [mm]	h [mm]	L [mm]	Max. flow [m³/h]	Max. flow [l/s]	Δp at max. flow [kPa]	Article number	Article number AutoClose
22 mm. comp.	153	20	106	1,3	0,35	1,3	AA022/008	AA022FBA08
22 mm. comp. V	220	-	104	1,3	0,35	1,5	AA022V/008	AA022VFBA08
G ¾	153	20	85	1,3	0,35	1,3	AA075/008	AA075FBA08
G ¾V	210	-	84	1,3	0,35	1,5	AA075V/008	AA075VFBA08
G1	180	35	88	2,0	0,55	1,3	AA100/008	AA100FBA08
G1V	210	-	84	2,0	0,55	2,4	AA100V/008	AA100VFBA08
G1¼	200	40	88	3,6	1,0	1,3	AA125/008	AA125FBA08
G1½	234	42	88	5,0	1,4	1,3	AA150/008	AA150FBA08

V = Vertical connection
Operating pressure 0 - 10 bar
Flow velocity ≤ 1m/s
Fluid temperature 0 - 110°C

Other sizes, materials, pressures and temperatures are available on request



Horizontal



Vertical

SpiroCare - analysis and advice





Under the name SpiroCare, Spirotech advise customers on the best possible treatment for the fluid within their systems. Our "Total Solutions" approach will include an effective combination of deaerators and dirt separators, combined with the correct additives, and where necessary backed up by periodic inspection of the system fluid. Spirotech has its own specialised laboratory and a team of experienced experts. Customers are provided with an extensive report containing advice on suitable water treatments.

Our service range:

- audits and on-site assessment;
- system design, optimisation and implementation;
- preventative measures;
- continuous process follow-up and adjustment;
- extensive technical service and support;
- customer specific chemicals for the prevention of corrosion, dirt accumulation and biological and mineral accumulations.

We have developed an integrated range of products and services to improve the performance of both new designs as well as existing processes at a lower environmental impact. SpiroCare provides solutions and new approaches to help maximise system running time and service life, decrease maintenance, save energy and maximise the functioning of the system.

SpiroCare offers added value:

- improved operation of every water carrying system;
- product quality;
- decreased operational costs;
- longer system service life;
- more friendly to the environment.

Better for the system; Benefits for everyone





Spirotech products and services not only offer attractive Benefits for systems. Everyone involved stands to benefit from what Spirotech has to offer, from advisers, designers, distributors and installers to system users and maintenance people.

Certified

We are constantly improving our products and processes. It goes without saying that we are certified for quality (NEN-EN-ISO 9001), environmental management (NEN-EN-ISO 14001) and health and safety (OHSAS 18001).

Custom-made solutions and OEM applications

Spirotech offers not only standard products. If necessary, we work with customers to produce custom-made solutions. These are based on users' specific requirements. If desired, these can also be supplied as OEM products.

Digital support

Product data sheets, standard specification texts, line drawings, CAD symbols, project descriptions, etc. are available via our website.



SPIROLIFE Exceptional Guarantee

Spirotech's Exceptional Guarantee Terms!

- 20 Brass Products ≤ 110°C: 20 years
- 5 Steel Products and Brass Products >110°C: 5 years
- 2 Vacuum Degassers: 2 years

Conditions:
Correct selection, installation, maintenance and use of the products, in accordance with our regulations, data sheets and user manuals. Our guarantee does not cover normal wear and tear. Please also see our general terms and conditions.

Spirotech: accessories, additives and advice

Spirotech designs and produces innovative total solutions for conditioning fluids in HVAC and process systems. Our products and services reduce faults and wear, less maintenance is required, performance is improved and energy consumption is reduced.

Spirotech is deservedly regarded as the only real specialist in the world. Leading manufacturers of system components recommend Spirotech products on account of their high standard of quality and the company's vision on product development and process improvement.

Thanks to a very extensive international network of suppliers, users all over the world enjoy the benefits of our products and services every day.

Spirotech is a Spiro Enterprises company

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