

SPIROTRAP®



DIRT SEPARATORS FOR  
HEATING, COOLING AND  
PROCESS SYSTEMS



DOMESTIC | COMMERCIAL | INDUSTRY



## The smallest particle of dirt can cause the biggest problems



**Dirt in system water can cause problems and heavy wear to components. This dirt largely consists of corrosion particles which seek out the magnetic fields in pumps, valves and control valves. Other dirt particles will be pumped round by the system and will eventually collect in critical components. The result? Unnecessary energy consumption, recurring complaints, reduced efficiency, faults and failure.**

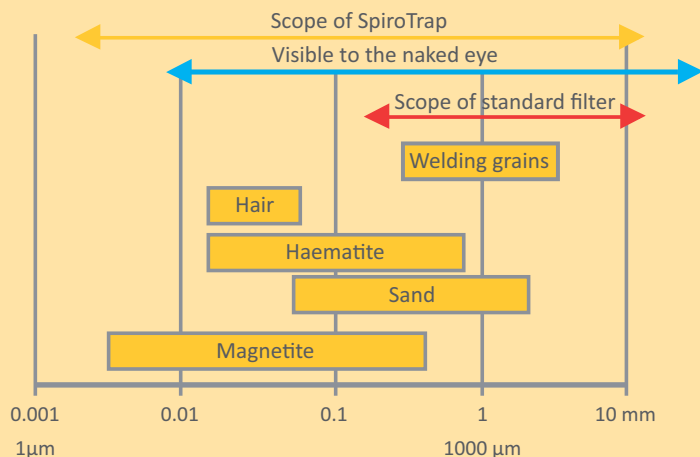
A filter is often installed in order to rectify problems caused by dirt but this is not the optimal solution. Filters clog up and have to be cleaned and replaced on a regular basis, resulting in additional work and costs. Spirotech has developed the most effective solution: the SpiroTrap dirt separator. A SpiroTrap dirt separator is virtually

maintenance-free and continuously removes all dirt particles. Independent tests have shown that even microscopic particles are removed from the fluid flow and the accumulated dirt does not affect the operation of the SpiroTrap. What is more, the SpiroTrap - unlike a filter - has a very low and constant flow resistance.

### Total solutions

Spirotech offers an extensive range of total solutions for HVAC and process 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.

### Just how small are dirt particles?



“The presence of dirt causes unnecessary maintenance and costly callouts.”

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

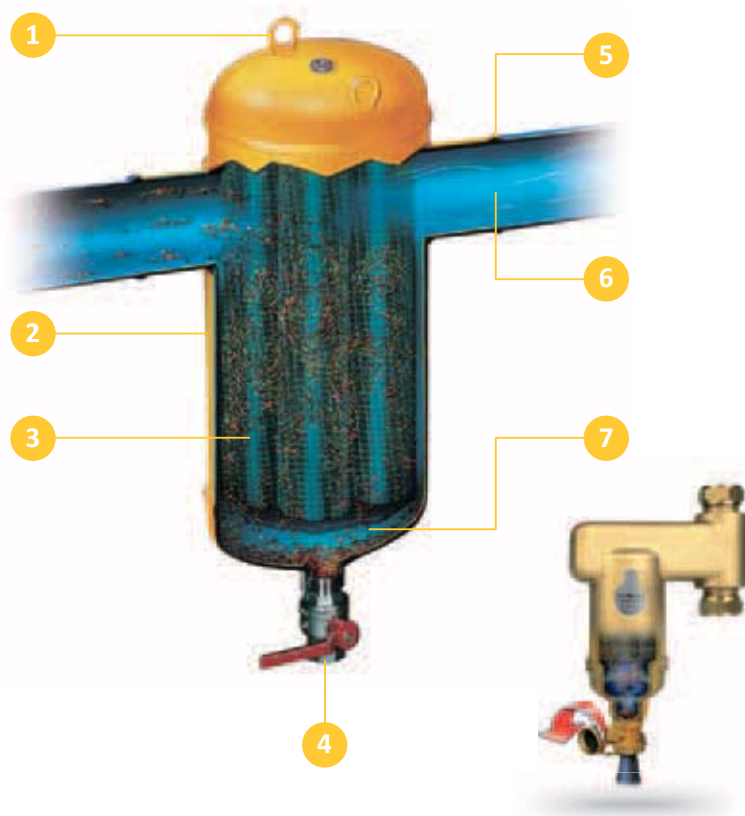
# SpiroTrap dirt separators: time-saving and effective

At the heart of the SpiroTrap is a spiral structure through which the fluid flows. This is the “Spirotube”, which ensures that dirt particles sink automatically. Although the Spirotube can trap the smallest dirt particles, it has a very open structure which means that the SpiroTrap 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, as with standard filters the system would need to be switched off to enable cleaning to be carried out. If no additional shut-off valves

are installed, the system will have to be partially drained before the filter can be cleaned or replaced. When the drain valve is opened, the collected dirt is discharged quickly and effectively. This action - opening and closing the valve - only takes a few seconds.

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.



## 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.
- Minimal constant 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.



## SpiroPlus

Protect and optimize the system and its efficiency with SpiroPlus flushing agents and additives.



## An extensive range of SpiroTrap dirt separators

Optimum system and process water quality is achieved when air and dirt is kept to a minimum. If air and dirt is not removed, or is not removed sufficiently, numerous complaints and problems can arise such as annoying noises, frequent manual venting, deteriorating pump performance, an imbalance in the system, unnecessary disturbance and excessive wear. All these things result in higher energy consumption, complaints and failure and often require immediate action.

Spirotech offers an extensive range of SpiroTrap dirt separators specially for removing dirt. All products can be used for both new build projects and for renovating heating, cooling and process systems. SpiroTrap dirt separators are available in brass

and in (stainless) steel. The brass separators, suitable for a flow velocity of up to 1 m/s, can be installed in horizontal and vertical pipes. The SpiroTrap MB2 can even be fitted in diagonal pipes. The steel models are available in standard and hi-flow designs.

Connection	H [mm]	L [mm]	Max. flow [m³/h]	Max. flow [l/s]	Δp at max. flow [kPa]	Article number
22 mm. comp.	118	106	1.3	0.35	1.3	AE022
22 mm. comp. V	182	104	1.3	0.35	1.5	AE022V
G ¾	116	85	1.3	0.35	1.3	AE075
G ¾V	172	84	1.3	0.35	1.5	AE075V
G1	143	88	2.0	0.55	1.3	AE100
G1V	172	84	2.0	0.55	2.4	AE100V
G1½	161	88	3.6	1.0	1.3	AE125
G1½	197	88	5.0	1.4	1.3	AE150
G2	238	132	7.5	2.1	1.4	AE200

V= Vertical connection  
 Operating pressure 0 - 10 bar  
 Other sizes, materials, pressures and temperatures are available on request.

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



Brass, horizontal: 22 mm up to 2"

Brass, vertical: 22 mm up to 1"

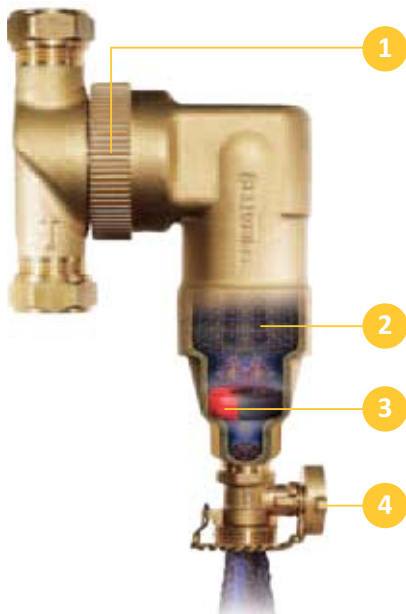


## The flexible SpiroTrap MB2 operates in any position

The SpiroTrap MB2 is a completely universal unit. Just like other SpiroTrap models it simply and efficiently removes both magnetic and non-magnetic dirt particles from the system fluid. Thanks to the built-in magnet, magnetic parts will be removed more quickly. The universal 'twist-release' ring is suitable for vertical, horizontal or even diagonal installations.

### How does the SpiroTrap MB2 work?

The SpiroTrap MB2 has got a unique dual action separation system which continuously filters out all the dirt; the Spirotube and the self-cleaning magnet. The Spirotube traps all dirt particles (from 0,005 mm!) that are heavier than water. The magnet instantly boosts the separation of magnetic dirt (mainly magnetite).



### Extra SpiroTrap MB2 benefits:

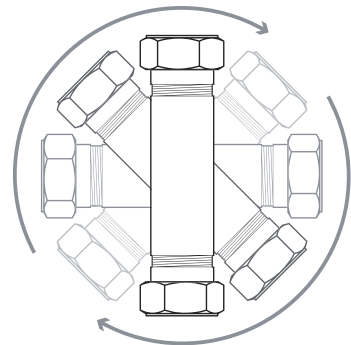
- Magnetic parts will be removed more quickly due to the built-in magnet.
- Suitable for vertical, horizontal and even diagonal piping work.
- Even easier and quicker to install.

1. Twist-release ring to easily rotate fitting to desired angle.
2. The unique Spirotube is the heart. This component has been specially designed for optimum dirt separation and has a very low flow resistance.
3. Self-cleaning magnet which instantly boosts the separation of magnetic dirt particles.
4. Drain valve for removing collected dirt.

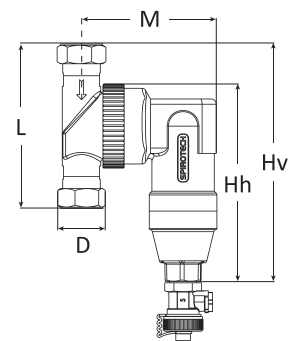
Technical specifications SpiroTrap MB2		
Connection [D]	22 mm comp.	28 mm comp.
Max. Flow rate [l/sec]	0.30	0.55
Volume [l]	0.18	0.25
Weight [kg]	1.44	1.63
Dimension (Hv)	167 mm	178 mm
Dimension (Hh)	149 mm	160 mm
Dimension (L)	100 mm	100 mm
Dimension (M)	102 mm	115 mm
Product code	UE022WM	UE028WM



Suitable for vertical, horizontal and even diagonal piping work



Rotating fitting mechanism

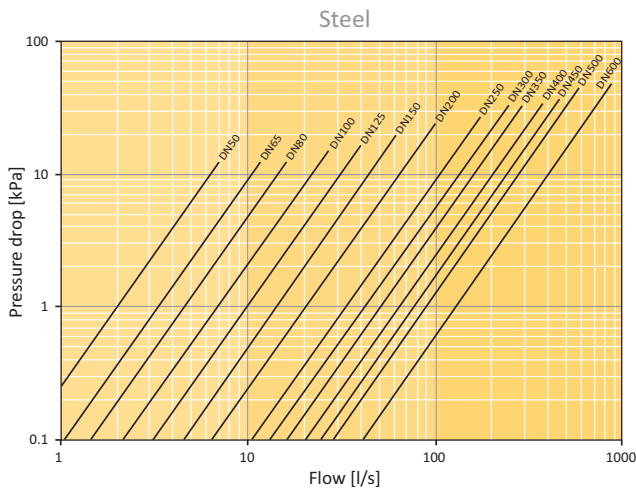
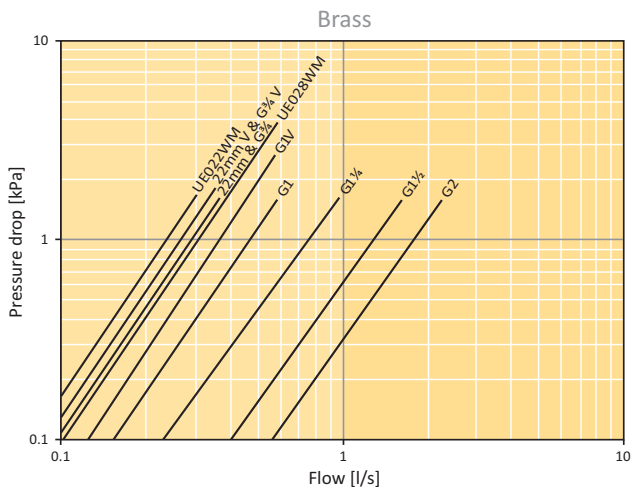


Universal model



## Flow resistance graph for SpiroTrap

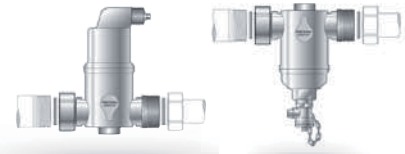
Unlike filters, SpiroTrap dirt separators have a minimal constant pressure drop.



Measured values according to Spirotech standard. Values shown are maximum values. Please contact us for further information.

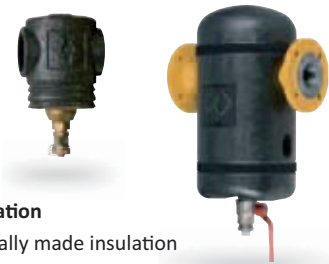
SpiroTrap dirt separators are suitable for water and water/glycol mixtures (max. 50%). They can be used in combination with locally approved chemical additives and inhibitors that are compatible with the materials applied within the system. Not suitable for drinking water.

The standard SpiroTrap is suitable for a temperature range of 0 to 110 °C and for an operating pressure of 0 to 10 bar. The SpiroTrap housing (from DN 050) is made of unalloyed steel. The flange connection is PN 16. The housing of the SpiroTrap 22 mm compression, 3/4", 1", 1 1/4", 1 1/2" and 2" is made of brass. Other sizes, materials, pressures and temperatures are available on request.



### Add-on sets

Spirotech provides complete add-on sets for vertical oil and gas boilers with distributors and mixing groups which are ready for use. These can be installed between the boiler and the mixing group.



### Insulation

Specially made insulation sets are available for most dirt separators.

### 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.

Separate literature is available that contains detailed product information. You can also find this information on our website.



## SPIROLIFE Guarantee of a lifetime

Spirotech's Exceptional Guarantee Terms!

**20** Brass Products  $\leq 110^{\circ}\text{C}$ :  
20 years

**5** Steel Products and  
Brass Products  $> 110^{\circ}\text{C}$ :  
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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