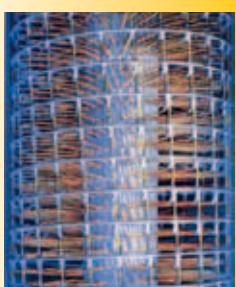




proven "cross technology" now also in domestic range

## **SPIROCROSS AX-SERIES** air and dirt separation perfectly balanced

A good hydraulic balance is highly important for a heating system with separated circuits or several groups and pumps. The effective removal of air and dirt also contributes greatly to system effectiveness. Normally, three different components have to be installed for this. However, the SpiroCross combines all three functions in one single compact unit. As a result, this will not only lower the purchasing costs, but also the installation and maintenance costs.



### Benefits of SpiroCross

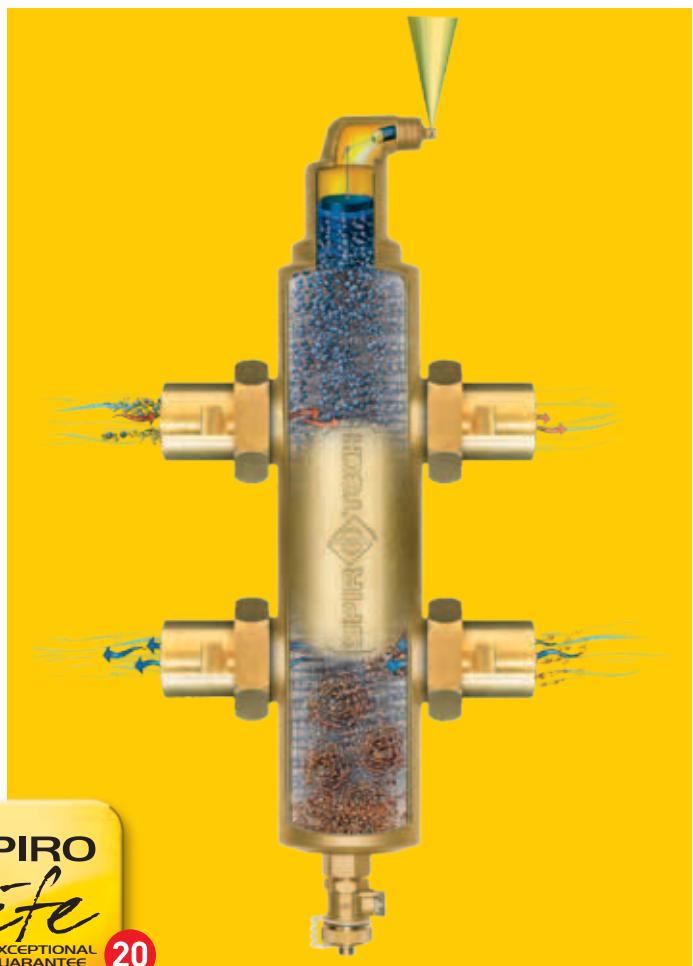
- Three functions in a single component.
- Quick and easy installation.
- Optimum hydraulic balance in the system.
- Spirotube guarantees minimal fluid mixing.
- True active air and dirt separation; Even the smallest air bubbles and dirt particles are separated and removed.
- Dirt discharge while the system remains in operation.
- Minimal constant pressure drop.
- Compact design and limited built-in height thanks to the Spirotube
- 20 Year guarantee

The unique Spirotube provides active air and dirt separation in a highly compact design, and guarantees a perfect balance with a minimal mixing of flow. The SpiroCross is 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.

OPTIMUM SUITABILITY FOR APARTMENT BUILDINGS AND SMALL OFFICES

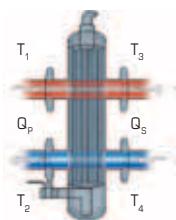
### 3 PRODUCTS IN 1:

- HYDRAULIC BALANCE
- AIR SEPARATOR
- DIRT SEPARATOR



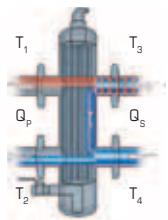
## SpiroCross: versatile yet compact

Situation 1:  $Q_p = Q_s \quad \Delta T_p = \Delta T_s \quad T_2 = T_4$



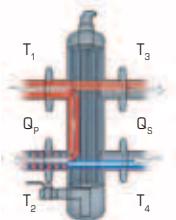
In this rare situation, supply and demand are exactly equal. This is the ideal situation in which the hydraulic separator is actually superfluous.

Situation 2:  $Q_p < Q_s \quad \Delta T_p > \Delta T_s \quad T_2 = T_4$



In this situation, demand is greater than supply. This will cause the  $\Delta T$  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 will then be increased.

Situation 3:  $Q_p > Q_s \quad \Delta T_p < \Delta T_s \quad T_1 = T_3$



In the third situation, supply is greater than demand. This will cause the  $\Delta T$  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 will decrease. Where possible, the power will be modulated downwards.

**At the heart of the SpiroCross is a spiral structure through which the fluid flows. This is the "Spirotube" which ensures that micro bubbles rise automatically and dirt particles sink automatically. 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.**

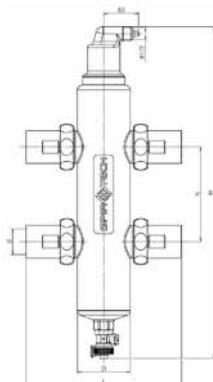
Dirt trapped can be discharged while the system is in operation. This saves a great deal of time and therefore represents a major advantage over filters.

### How exactly does a hydraulic separator work?

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

#### Technical specifications

Article number	AX100	AX125	AX150
Connection d [Rp]	"	1	1 1/4
H	mm	515	515
h	mm	144	144
D	mm	80	80
L	mm	236	236
Primary Flow at 1 m/s	m³/h	2,0	3,6
Primary Flow at 1 m/s	l/s	0,55	1,0
Capacity [ $\Delta T = 20^\circ\text{C}$ ]	kW	46	84
Capacity [ $\Delta T = 6^\circ\text{C}$ ]	kW	14	25
Volume	l	1,5	1,5
Weight	kg	6,5	6,5



The SpiroCross is 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 SpiroCross is suitable for a temperature range of 0 to 110 °C and for an operating pressure of 0 to 10 bar.

**SPIROTECH**  
FOR BETTER  
PERFORMANCE

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