

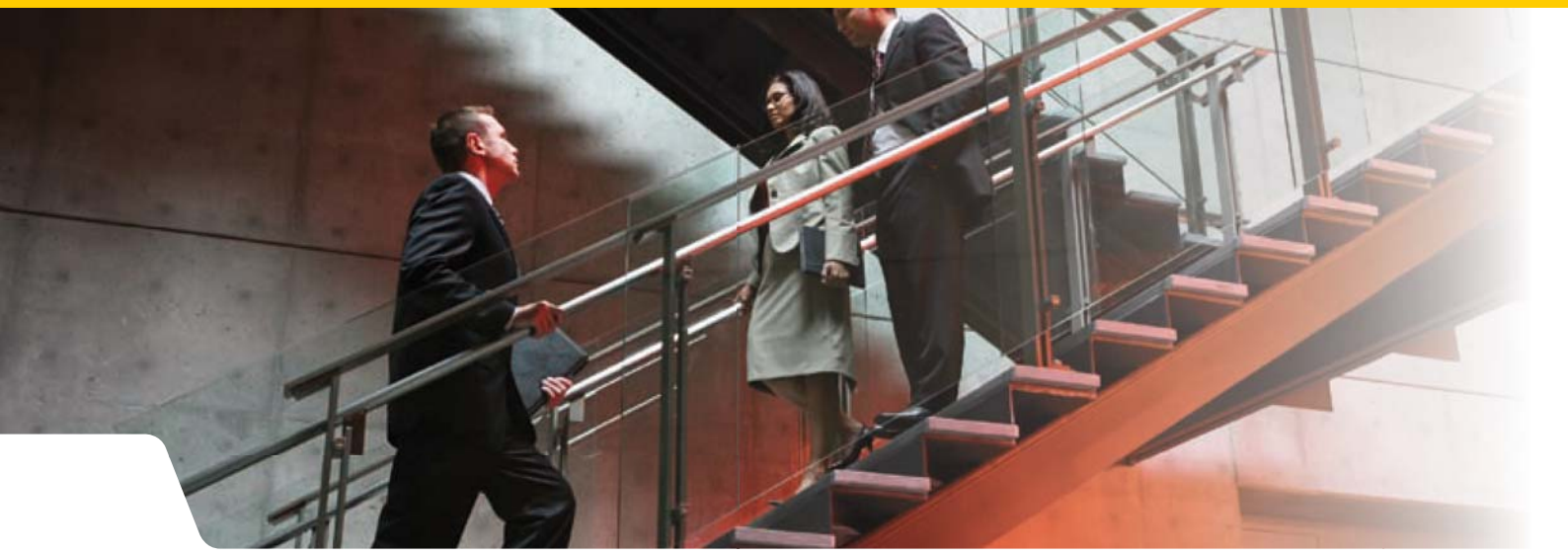
**COMMERCIAL**



**OPTIMUM PERFORMANCE  
IN HVAC SYSTEMS**

**SPIR  TECH**  
FOR BETTER PERFORMANCE

**ACCESSORIES | ADDITIVES | ADVICE**



## An efficient system means a higher level of comfort

**Climate conditioning systems are essential for any residential or commercial building. These systems are becoming more and more complicated and more and more of an integral part of the building structure. However, they are also becoming increasingly sensitive to problems caused by the presence of air and dirt, resulting in complaints from occupants and users. Spirotech offers custom-made solutions to reduce faults, wear and maintenance significantly and to provide energy savings and a high level of comfort.**



### Comfort as a basic consideration

Comfort is a basic consideration for commercial buildings and heating, cooling and hot water systems play an important role in this regard. However, despite periodic inspections and maintenance, there are many occasions where these systems have not always provided optimum performance. Many owners, facilities services or installers receive complaints from occupants and users regarding the temperature inside buildings. This can be prevented by using high quality components and making sure that installation is carried out by skilled professionals. It is just as important to fill the system with clean system water and to maintain the quality of this water. It therefore cuts both ways. Occupants and users are satisfied and so are maintenance people.

### 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.

“Fewer complaints, less wear, better performance.”

“Normally, the commissioning of a complicated system is made difficult by the air in the system. Thanks to the SpiroVent Superior, we were able to commission the system in a surprisingly short period of time.”



## Real-life examples



*23 SpiroCombis keep the climate conditioning system at Barcelona Airport constantly free of gases and dirt particles.*

**The use of Spirotech products ensures a higher level of comfort and consequently fewer complaints. The products also protect the system so that it will have a longer life.**

### A comfortable environment at Barcelona Airport thanks to SpiroCombi

A brand new terminal with a total effective area of 525,625 m<sup>2</sup> has been built at the international airport in Barcelona. A great deal of attention was paid to efficiency and sustainability when designing the climate conditioning system. As a result, 23 SpiroCombis were installed which constantly remove the gases and dirt particles present in the system. This has been Spirotech's contribution towards creating a comfortable environment at this Spanish airport.



*The SpiroVent Superior removed a huge volume of air during the start-up phase, thus enabling very quick commissioning.*

### SpiroVent Superior ensures quick commissioning of complex piping system

In an office complex, the heating system services numerous rooms. The typical piping system with many horizontal staggered pipes and the induction ceilings used make the systems difficult to vent. That is why SpiroVent Superior was installed. During the start-up period, over 1000 litres of air was removed from the system. This venting enabled the system to be commissioned extremely quickly.



*The world's first indoor black run ski slope has been made possible by using Spirotech products.*

### Spirotech contributes towards reliable cooling system for ski slope in Dubai

Various Spirotech products have enabled the construction of the world's first indoor black run ski slope in Dubai. A building with a volume of 170,000 m<sup>3</sup> and a surface area of 20,000 m<sup>2</sup> was built to house this ski slope. Because of the crucial role of the cooling system, the designer wanted an extremely reliable system which would require minimal maintenance. That is why Spirotech products were chosen. They enabled fast and easy commissioning and ensure the reliable operation of the whole installation.



# Solutions for the commercial sector

**Optimum system 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 and higher energy consumption. All these things often require immediate action which leads to unnecessary costs.**

Spirotech offers an extensive range of solutions for conditioning and keeping water from climate conditioning systems in an optimum condition. All products can be used for both new build projects and for renovating heating and cooling systems.

### SPIROTOP® - automatic air vents

Air collects at the highest points in a system. It can disrupt the flow or even cause it to stop altogether. SpiroTop automatic air vents are designed to remove this air quickly and effectively. Even if water has to be added or drained off, the SpiroTop ensures fast and reliable venting.



### SPIROVENT® - micro bubble deaerators

SpiroVent micro bubble deaerators are installed inline and remove free air and micro bubbles from the system fluid continuously. The unique Spirotube separates and removes even the smallest air bubbles. SpiroVent deaerators are available in brass (2") and steel (DN50 to DN600 inclusive) for commercial applications.



### SPIROVENT® - Superior - vacuum degassers

With SpiroVent Superior vacuum degassers, part of the system fluid is temporarily put in an underpressure (vacuum) condition. The air dissolved in the fluid is released, separated and removed from the system. Vacuum degassers are available for commercial systems with maximum operating pressures of 3½, 6, 10 or 16 bar.



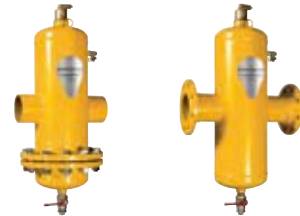
### SPIROTRAP® - automatic dirt separators

SpiroTrap dirt separators remove dirt particles from system fluid. Even the smallest particles - from 5 µm (= 0.005 mm) - are separated and removed. SpiroTrap dirt separators operate continuously and are virtually maintenance-free. SpiroTrap dirt separators are available in brass (2") and steel (DN50 to DN600 inclusive) for commercial applications.



## SPIROCOMBI®- automatic deaerators and dirt separators

SpiroCombi deaerators and dirt separators continuously remove free air, micro bubbles and dirt particles from system water, the optimal solution for cooling systems. Whether or not it is also the best option for a heating system will depend on various factors. Our specialists are able to provide you with the best advice for every specific situation. The deaerators and dirt separators are available in steel, from DN50 to DN600 inclusive.



## SPIROCROSS®- hydraulic deaerators and dirt separators

A good hydraulic balance is highly important for climate conditioning systems consisting of a number of groups and pumps. The effective removal of air and dirt also contributes towards system performance. All these activities - hydraulic balancing and air and dirt separation - are combined in the compact SpiroCross. That means saving on purchasing costs but also on installation and maintenance costs. SpiroCross is available in steel, from DN50 to DN300 inclusive.



## SPIROPLUS®- flushing agents and additives

SpiroPlus is a range of flushing agents and additives ideal for maintaining the quality of the system fluid and the system itself. The additives have been specially developed for use in heating and cooling systems and come with a KIWA-ATA certificate.

The SpiroPlus range includes the following additives:

SpiroPlus Cleaner	Dirt dissolver (flushing agent)
SpiroPlus Sealer	Leak sealer
SpiroPlus LimeCleaner	Descaler (flushing agent)
SpiroPlus AntiFreeze	Frost protector

Custom-made additives are also produced for specific applications.



## SPIROCARE®- analysis and advice

Under the name SpiroCare, Spirotech advises customers on the best possible treatment for water-carrying systems. The total solution chosen will comprise an effective combination of deaerators and dirt separators, combined with the right additives and, where necessary, backed up by periodic inspections. Spirotech has its own specialised laboratory and team of experienced experts.

Customers are provided with an extensive report containing advice on suitable water treatments.



### Solar applications

Spirotech also offers an extensive range of air vents and deaerators for solar applications.



### Insulation

Specially made insulation sets are available for most deaerators and dirt separators.

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



## 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.**

### For advisers, designers and specifiers

Spirotech tools make the task of designing systems which keep the system water in optimum condition a lot easier. These tools include CAD symbols, product data sheets and standard specification texts. In addition, the specialists at Spirotech are always available to answer specific questions and provide customer-specific advice.

“Spirotech tools make the task of designing systems and producing specifications a lot easier.”



### For property groups

Rapid commissioning during the start-up phase can be crucial for ensuring that a building is handed over on time. Spirotech applications guarantee this speed by keeping the system free of air and dirt. Buildings fitted with Spirotech products have been found to experience far fewer problems and damage than buildings without these products. And what is more, these products extend the technical and economic life of a system.

“Thanks to the rapid commissioning made possible by Spirotech products, we were able to hand over the building on time.”





## For installers and engineers

Spirotech products offer attractive benefits for installers and engineers. They can be installed quickly and easily and are virtually maintenance-free. For example, it takes only a few seconds to flush out the SpiroTrap and this operation can be carried out during routine system maintenance. It has been proven that the use of Spirotech products results in fewer complaints and fewer faults.

"There is nothing wrong with hard work but luckily Spirotech renders a lot of the tedious jobs superfluous."



## For facility management

The benefits to be gained by preventing complaints are twofold. Users will be more satisfied while the work which needs to be carried out in order to rectify problems, for example, will be reduced considerably. So you will have a lot more time to spend on routine maintenance activities.

"We hardly have any problems now, which means that we can devote our time to routine maintenance activities."



## Digital support

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

## 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.





# 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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