

WITZENMANN

managing flexibility

Heating, Ventilation and Sanitary Equipment



WHEREVER YOU NEED US. WORLDWIDE.



Worldwide

America

Brazil
USA

Asia

China
India
Korea

Europe

Austria
Belgium
Czech Republic
France
Germany
Italy
Poland
Russia
Slovakia
Spain
Sweden
UK

If you wish to learn more about our heating, ventilation and sanitary equipment products, you'll need to look behind the façade. That's because our components are mostly hidden when they're doing their work, providing a higher level of safety in buildings, a better quality of life and a better working environment. Our "hidden champions" are used in a broad variety of fields: they ensure the reliable operation of pipes and aggregates in heating and hot water systems as well as absolutely safe transport within gas control paths all the way to the pipe system. They also create a pollen- and dust-free atmosphere in automatically aired offices and working spaces.

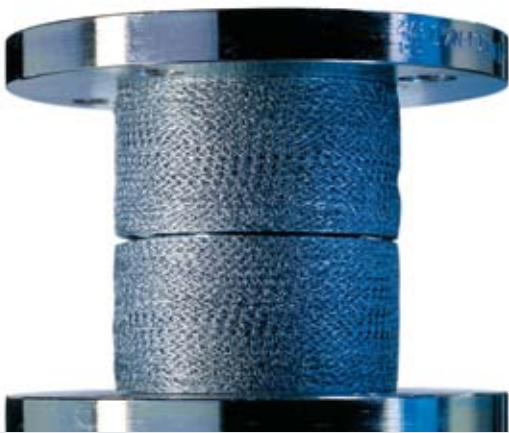
As founders of the metal hose and expansion joints industry, we have been ensuring the safe transport of materials and energy for more than 100 years – in the heating, ventilation and sanitary equipment industry, the automotive industry, the machinery and plant construction industry, the chemical industry and the aerospace industry as well as in vacuum technology. Today we are the No. 1 company in this sector in Europe – and one of the leading manufacturers of flexible metallic components worldwide. Therefore, we are at your disposal worldwide: our 24 business sites provide an efficient network to achieve a maximum level of availability for our customers.

BETTER STANDING: ENGINEERING



Smart
solutions

Every new product incorporates at least one good idea – conceived by a human being. At Witzenmann an extensive pool of highly qualified engineers ensures that bright ideas are turned into successful products.



The road from the product concept to series production is often quite bumpy — and that also applies to heating, ventilation and sanitary equipment. That's why we accompany you on this road right from the start, providing you with clever product ideas, surprisingly simple solutions and a bright team that speaks your language.

Our engineers also think of the next generation in their work. That's clear from our solutions in the area of alternative sources of energy: whether it's components for heat exchangers, fuel cells or solar technology, our solutions already demonstrate today how easy the use of renewable sources of energy can be.

Before going into series production, our flexible metal elements are checked thoroughly in our development centre. This is an extensive testing complex that includes reverse bending test facilities set up according to several different European standards as well as, e.g., hot gas and corrosion test facilities for new material combinations.

At Witzenmann, thorough quality management according to DIN 9001 makes all the processes transparent and efficient, from development to the selection of suppliers.

The reward is that Witzenmann products for heating, ventilation and sanitary equipment have already received all the important national and international approvals.



Innovative
and environ-
mentally
friendly

Sunlight, wood, wind and water: Witzenmann components for renewable energy generation enable economical and reliable long-term operation.

BREAKING NEW GROUND: RENEWABLE SOURCES OF ENERGY



The use of renewable forms of energy is the wave of the future – not only for the sake of our environment but also for economic reasons.

Making new technologies practicable means developing efficient solutions in a short period of time. These solutions must fulfil all the demands of the market: they need to be technically sophisticated but simple to use, customised to match a particular application yet optimised for systematic mass production. Because we understand these requirements, we are today one of the leading producers for the OEM market and a development partner of all of the leading European brand-name suppliers in the sector.

Within the industry, the Witzenmann name has stood for innovation and quality for more than a century. Today, HYDRA brand flexible elements provide for new solutions for the

energy sources wood, wind, water and sunlight. Witzenmann offers customised products for all of these renewable forms of energy:

- Solar thermal energy
- Solar power plants
- Heating units using wood pellets
- Large-scale wind farms
- Combined heat and power plants (CHP)
- Mini-CHP plants
- Geothermal energy
- Hydroelectric power plants
- Heat pumps

Witzenmann products for renewable energy sources connect plant components, decouple movements, compensate for temperature-related expansion, balance out assembly inaccuracies, or serve as functional elements in heat exchangers. They operate efficiently and reliably – thus benefiting the environment and our customers alike.

HEAT EXCHANGERS: MAXIMUM EFFICIENCY FROM THE MARKET LEADER



Ingenious ideas

The type of corrugations in a metal hose has an impact on the pipe's efficiency and the rate at which fluids can flow through it. Whether with large corrugation height that provides for top efficiency or with small corrugation height that guarantees dimensional stability or combinations of the two – Witzenmann has them all.



When it comes to heat exchangers, Witzenmann benefits from its long experience and expertise as the market leader for flexible metallic elements – and offers a series of innovative compact heat exchangers that are optimally designed for each application and customised to serve customers' specific needs, whether it's a complete component or a self-supporting helix that is integrated into an existing housing. Our heat exchangers are traditionally used in stratified storage systems for heating drinking water, e.g. by means of solar heat, or as highly efficient heat exchangers for swimming pools.

Complete solutions for optimal coordination
With its customised complete solutions from a single source, Witzenmann can accommodate very specific customer parameters, such as the diameter and geometry of a hose coil or the form of a corrugation or housing. All of these are factors that influence a heat exchanger's efficiency. A key role is played here by the use of corrugated metal hoses, because corrugated hoses are many times more efficient than conventional pipes. This makes it possible for a much smaller heat exchanger to perform just as well as a conventional pipe coil heat exchanger – or for a heat exchanger of the same size to deliver considerably higher output.

Besides, a corrugated hose profile creates turbulence that constantly whirls the water around and moves it from place to place. That further maximizes the heat exchange and thus the efficiency of the system.



System partner for OEMs

The Witzemann group offers the widest range of flexible metallic components worldwide. This unique product know-how and many years of experience make us a preferred system partner of industrial companies.

PLUG & FLOW: PIPING FOR APPLIANCES



Our market leadership in heating, ventilation and sanitary equipment is based to a certain extent on the fact that we manage again and again to introduce products to the market that are intelligently designed and easy to handle. Take, for example, our boiler hoses with an individually adapted corrugated shape: not only do they offer technical advantages, they are also easy to fit. Above all, they provide first-class connections between the boiler and the hot water storage tank. Our Plug & Flow components also make for easier connections in solar technology, gas applications, and drinking water and hot water systems. Plug it in, secure it – and you're done! Never before has it been this easy to create absolutely safe connections.















Whether it's customised system solutions or specifically manufactured layer hoses – as a leading supplier to all the best-known OEMs in this segment, we assign top priority to product quality and safe operation.

Our focus is always on long service life and high efficiency. That's why we have one of the most advanced large-scale production plants in our sector, and why our products are more efficient in terms of their technical details as well. In most cases, however, you won't find that out until you've experienced how quick and easy our products are to install.

AS SAFE AS ELECTRICITY: GAS



International certification

Germany		Italy	
Austria		Czech Republic	
Switzerland		Hungary	
Denmark		Bosnia-Herzegovina	
Poland		Slovakia	
France		Russia	
Spain		Ukraine	



The highest level of safety, reliability and durability are the decisive criteria with regard to piping gas. In order to guarantee this safety, the best possible quality of the gas hoses is an absolute must. For us, this means one thing above all: it's our duty to examine all of our products on an ongoing basis, from the initial development stage to the production process.

As one of the leading manufacturers in this segment, we have so far sold more than 20 million gas hoses.

But we are not satisfied with this achievement. As an innovator in our industry, we never stop refining our products. Take for example our HYDRA gas hose with an integrated flow monitor, which enables even end consumers to directly connect their household appliances quickly and with absolute safety directly with the existing safety gas socket.

All of the components of our gas hoses have to prove their suitability in our test stands. We use our reverse bending test facilities to check our candidates from top to bottom. All this is based on the standards and requirements that are in effect worldwide.

The certifications show that this quality standard has been successfully reached: our products have been approved for use in many European countries. That, of course, testifies to the top quality of our gas hoses and to our customers' satisfaction – nationally as well as internationally.

It's therefore no wonder that our gas hoses go into action at all kinds of sensitive points within the gas supply, whether they are in connections to the rigid pipe network inside houses or in systems leading towards houses in areas prone to subsidence or earthquakes – in short, wherever absolute safety is indispensable.



10-year
warranty

Rough exterior, heart of gold: the patented HYDRA long-life shower system is based on a completely assembled metal clamp safety hose, which is very tough and very flexible. It's also TÜV-approved and comes with a 10-year warranty.

IN A LEADING POSITION: WATER



Naturally, every pipe system is subject to strain and therefore must have a certain amount of flexibility in one or more directions. This is even more important in heating pipes because, in addition to movements within the system, heat expansions also have to be compensated and decoupled.

Here, our components for heating, ventilation and sanitary equipment do a good job: They compensate for tensions and expansions due to heat within the pipe system and thus prevent burst pipes. In addition, they offer easy fitting that is exemplary. For example, every Witzemann expansion joint for heating, ventilation and sanitary equipment is supplied complete with matching press fittings, weld-on ends, threads or compatible flanges.

Our hoses for sanitary facilities are also completely ready-made for installation. For example, the HYDRA hose for the catering trade, made entirely of stainless steel, impresses customers with its extreme toughness and durability. Especially in canteen kitchens, in the catering trade and in hotels this hose is a very welcome permanent guest.

Design line

Unusual, innovative and futuristic – that's our new product line, which ranges from shower systems for the most discriminating taste and square or triangular shower hoses to completely new technical concepts. All of them are eye-catching additions to the bathroom or the kitchen.

A BREATH OF FRESH AIR: VENTILATION TECHNOLOGY



Controlled ventilation of residential space

Systems for the controlled ventilation of residential space save energy and thus help to limit global warming. We've got the solutions that will make your construction project environmentally friendly and efficient.

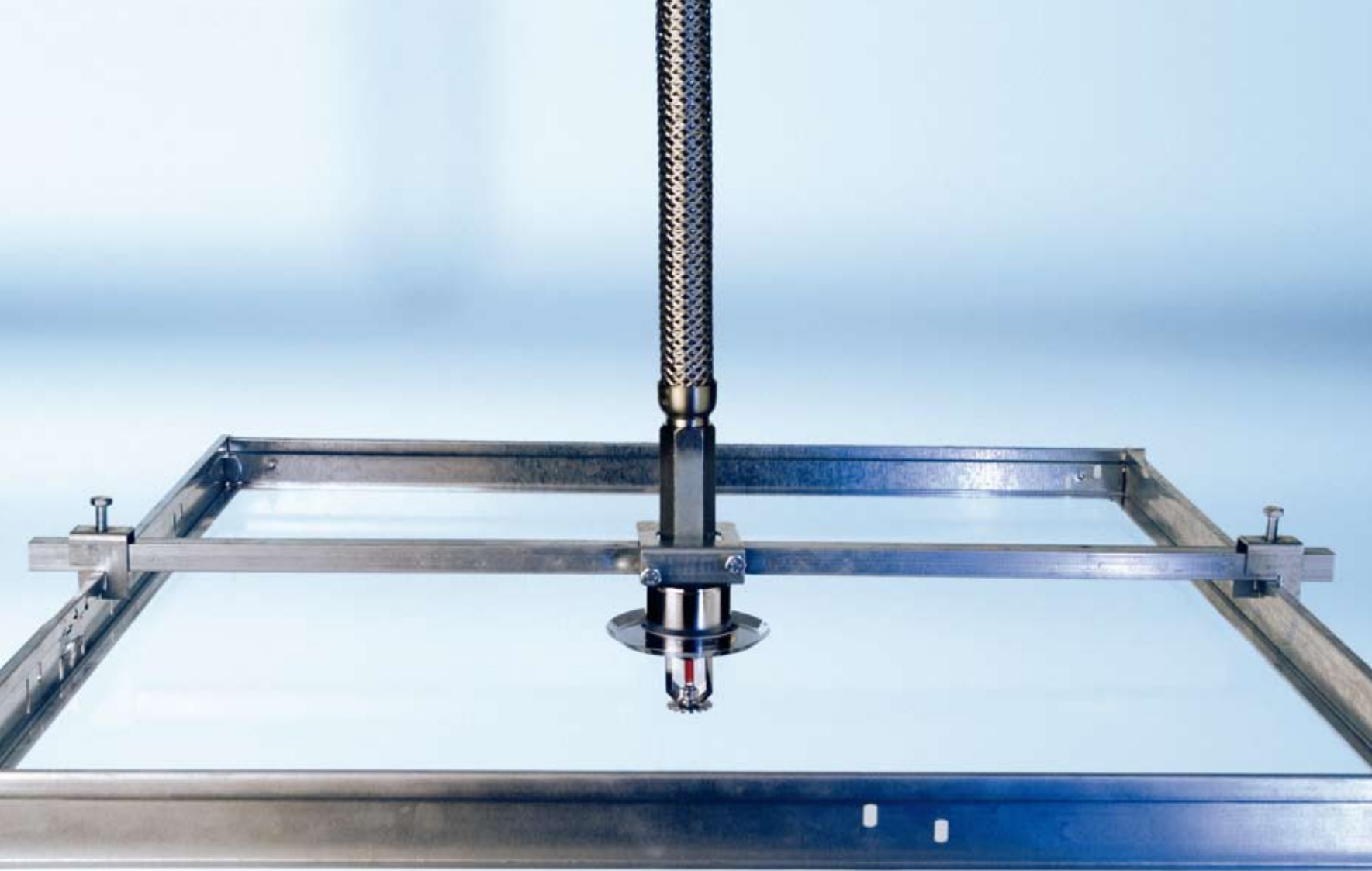


Modern buildings that are equipped with efficient energy sources and regulation technology require controlled ventilation of living spaces on account of their high construction density. Regular air circulation prevents damage due to dampness and the formation of mould, thus helping to preserve the building. In addition, the controlled supply of fresh air helps to keep residents healthy and comfortable.

That's why more and more buildings today are being equipped with systems for the controlled ventilation of residential space. Flat HYDRA ventilation channels from Witzenmann can be unobtrusively installed in walls, ceilings or floors. As a development partner and volume supplier of international brand-name manufacturers, Witzenmann is today the market leader for flat channels.

The extensive range of ventilation technology components from Witzenmann can be installed compactly and flexibly in walls, floors and ceilings. Flat channels from Witzenmann for residential space ventilation make it possible to implement routing systems without any problems. The broad range of components with optimised dimensions and shapes enables planners to create ideal customised designs for the air volumes required in each residential space. Even the smallest installation spaces can be used to best advantage, which makes the system ideal for new buildings as well as renovated ones.

What's more, at Witzenmann planners and craftsmen will find solutions for every challenge to ventilation technology. They can choose among channels, folded spiral-seam pipes and moulded components as well as specially soundproofed pipes and sound absorbers – flexible or rigid, with or without gates, and in all kinds of thicknesses and diameters.



Flexible,
complete,
precise



Fire protection facilities are becoming more and more important in public buildings, hotels, shopping centres and shipping. Sprinkler systems prevent the expansion of fires, thus contributing considerably to the protection of people and property.

JUST IN TIME: FIRE PROTECTION



You're familiar with the problem: finding the right position for installing sprinkler nozzles in suspended ceiling systems by means of conventional fitting techniques is rather complicated. The main problem is the rigid piping system, which means that the precise positioning of the sprinkler nozzles is a time-consuming and costly job.

Only when the suspended ceiling is finally fixed can the experts for sprinkler systems and ceilings work together to get the sprinkler nozzles in the right positions – and they often struggle against enormous time pressure. In addition, the final impermeability test of the entire sprinkler system is only possible after the ceiling work has been finished. As a result, water damage often arises due to leaks which cannot be completely excluded.

The flexible solution for this problem is our HYDRA sprinkler mounting systems: the flexibility of the stainless steel hose guarantees easy positioning of the nozzles. Using this system means that the hoses can simply be led around even troublesome components and assemblies.

Another very practical feature is that the system facilitates the installation of the entire sprinkler system under operational pressure during the early stages of building construction – including impermeability test. Thanks to a special mounting, the positioning of the nozzles is carried out just before the suspended ceiling is finished. The HYDRA sprinkler system is offered with special mounting components for all of the ceiling systems commonly available on the market.