

HEATING AND COOLING UNDER ONE ROOF

The holy seven for attic extensions 2

Attic extension in Vienna 4

Mr. and Mrs. Schüler in the Casa Mobile 8

varioprise 12

Ladies and gentlemen,
dear business partners,

When I began installing heating systems in attic extensions during the 1980s, nobody thought it necessary to think about cooling on the top floor. Extending heating pipes up into the attic, providing good heat insulation and roof windows were the most important considerations in those days.

Nowadays, everything has changed, and people are thinking further ahead. Attic extensions are now more popular than ever. At a time when the number of new homes being built is decreasing, it is becoming increasingly popular to make the best possible use of empty attic spaces. In urban areas, converted attics offer plenty of light, impressive views over the city and often also provide space for a roof garden.

However, summers have become warmer and drier. When not enough care is taken in the planning, even well insulated attics can become unbearable sweatboxes.

One thing hasn't changed, however. An attic extension is not a conversion. In terms of energy use, it should be treated in the same way as a new construction. This accordingly has an effect on the time and effort required. In this issue of Variovertime, you'll find inspiring examples, a wide range of tips and detailed information on how to make your next roof extensions successful showcase projects!

Kind regards,

Alexander Watzek



Attics The Holy 7

1 Have you thought of everything?

When building a roof extension, you should make sure that you have thought through a few specific technical issues. The statics play a "supporting role" in the truest sense of the word. It is also important that you provide sufficient thermal mass under the roof.

2 Use dry construction and save time and money

Using dry constructions saves you time and a great deal of effort, and means that you can perfectly integrate Variotherm surface heating and cooling systems! Variotherm module panels for walls and ceilings are the perfect solution, and also save weight. The heating or cooling surfaces are already integrated, and fire protection is already installed.

3 The thinner the walls, the wider the rooms

Every cubic centimetre counts! In other words: if you decide to install surface heating, you should use Variotherm module panels. They provide heating and cooling systems in combination with the wall. When it comes to the floor: with a thickness of just 20 mm, the compact floor heating system provides the best basis for a comfortable room climate without sacrificing valuable room height.

4 One skirting heating system fits under every roof!

Variotherm skirting heating systems are a good alternative for heating an attic almost invisibly. Since they are preferably installed under sloping surfaces and with large glass areas, they fill up an otherwise unused space.

5 Old heating circuit - new Variotherm system under one roof

The heating system for the attic space is usually integrated into an existing system. The Variotherm pumped manifolds are designed just for this purpose. They mix the 60-70 degree flow temperature created in the boiler down to the level required for surface heating systems (30-35 degrees). The advantage: the heating room does not have to be completely converted.

6 How to prevent the attic from turning into a sweatbox

Cooling in roof areas is also a "hot topic". At Variotherm, we specialise in creating comfortable roof climates. Ideally suited for the purpose: pitched roofs.

7 People with fast regulation cool down more quickly

It's important to have a fast-reacting system when it comes to regulation. If the weather changes from storm to sunshine in a matter of minutes, you need a system that can react just as quickly.

Get information before installing!



Here over the roofs, and otherwise in action under the roofs of Vienna: the attic extension specialist and qualified engineer Holger Eichberger

Attic extensions with Variotherm

What should installers take into account when building a roof extension? Here are a few comments from master builder Mr. Eichberger, a legally verified and certified assessor for attic extensions:

A roof extension is nothing other than a special building construction at a height of 20 m. The advantages from a town planning perspective are: in a central urban area, additional, high-quality living space can be created which makes use of the already existing infrastructure.

Here, the installer must take particular care over the component and material mix to avoid falling into liability traps with regard to the consumer protection legislation. Mr. Eichberger's tip: talk to real experts before planning a system and submitting an offer. They will inform you about possible problem areas. The task is not just to plan a heating system, but to create a comprehensive package.

Mr. Eichberger's approach: "Before we design a heating and cooling system, we calculate the window areas and thermal mass required for a comfortable room climate. Then I contact Variotherm and ask them to calculate the heating and cooling surfaces."

"Whenever I can, I plan a solar heating system on the roof, with panels for photovoltaics and water." Where can you find better conditions for a project of this kind than on the roof?

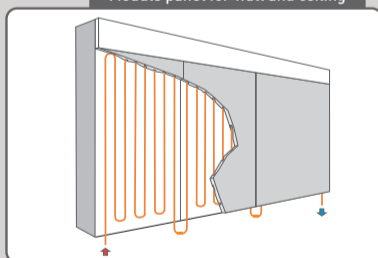
If you are installing a heat pump, take the noise it produces into account! In many cases, a construction permit and noise level assessment are required. If necessary, we can also provide assistance by guiding installers through the approval process.

If you are planning a roof extension, Variotherm is your perfect partner!

The Variotherm roof triangle

Variotherm skirting heating systems, Variotherm ModuleWall and VarioComp are the best solution for all heating and cooling requirements under one roof.

Module panel for wall and ceiling

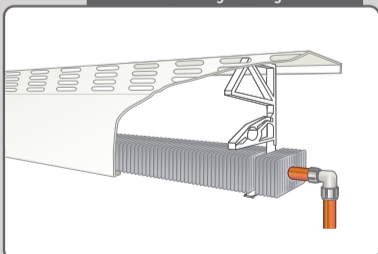


1 Module panel for wall and ceiling

Combines heating/cooling in a single area

- Large-surface, high energy-saving low temperature system
- Ideal for timber-framed buildings, pre-fabricated houses, attics/renovation
- FERMACELL® gypsum fibreboards tested for health and safety

Skirting heating

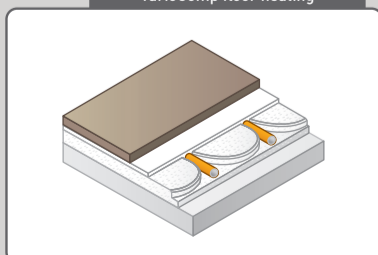


2 Skirting heating system

Hot water heating system works in seconds

- Totally customisable
- The hot air veil is generated along cold walls, providing insulation against the cooling effect from glass surfaces
- Effectively combats damp and mould formation on walls

VarioComp floor heating



3 VarioComp floor heating

Super-slim 20 mm panel thickness!

- Low weight! Ideal for attic extensions
- Optimal heat transfer
- Excellent controls
- Fast and simple assembly

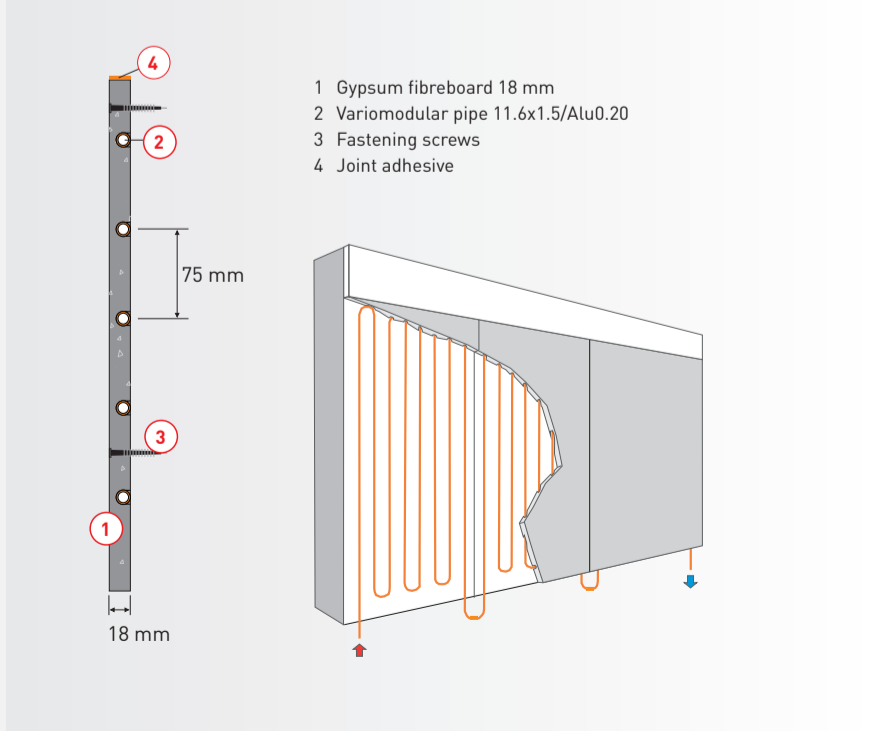
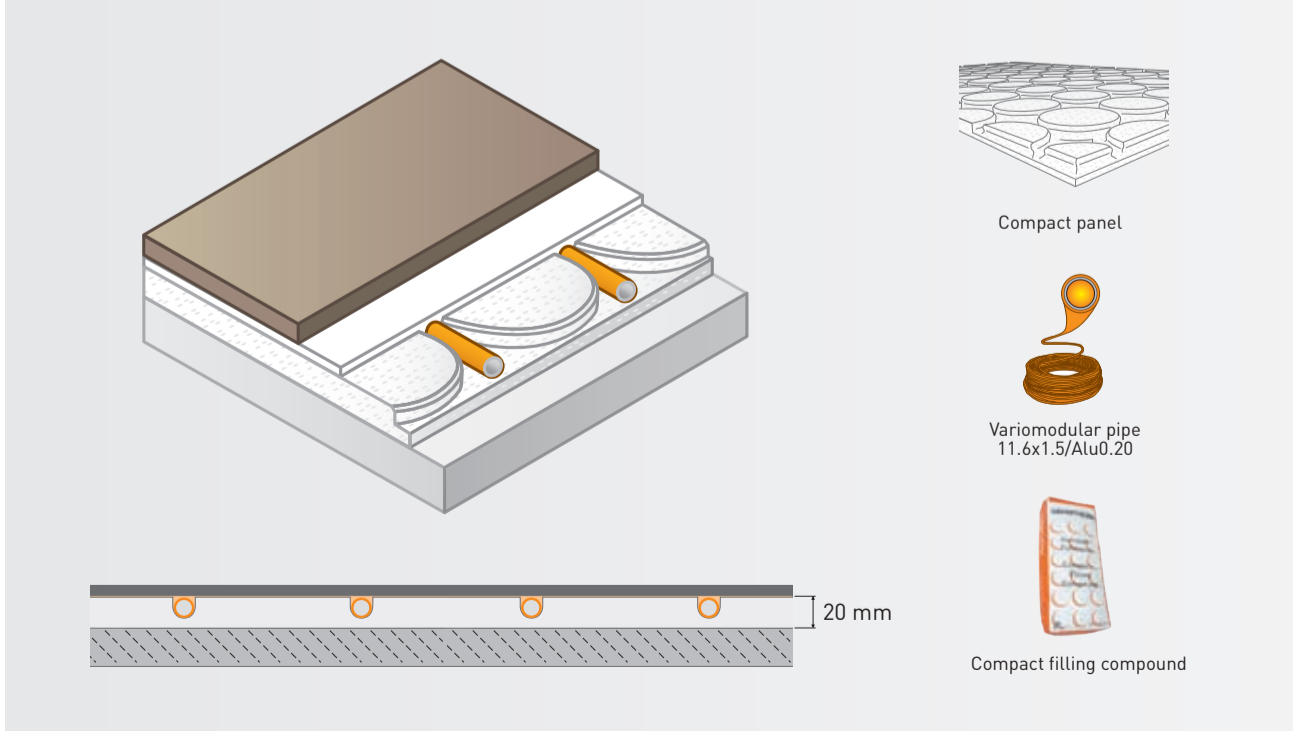
Here are a few examples:

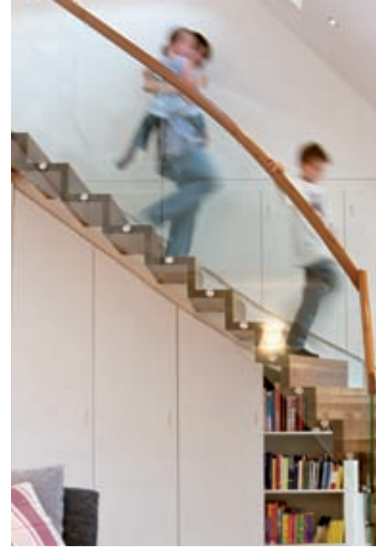
www.variotherm.at/dach





TECHNICS VarioComp Floor Heating Modular Wall Heating/Cooling





Radiator? NO THANKS!

Attic extension? YES PLEASE!

Once there was an early 20th century house in Vienna, and Astrid Jeschko wanted to extend the attic space. After inspecting the basic roof structure, she created a sturdy new roof for her building project. Soon it became clear that this was in fact a new construction, rather than an extension. So, the old roof had to be taken down, and everything had to be re-built. A construction of this kind offers the best opportunity to design everything according to the latest technical standards. This also applies to heating and cooling.

If there's one thing Astrid Jeschko doesn't like, it's radiators. She was looking for evenly distributed, comfortable heat throughout the entire building, and just at the right moment, her father Heinrich Pelzelmeyer told her about Variotherm. It wasn't long before Astrid Jeschko warmed to the Modular wall heating/cooling and the VarioComp floor heating system with a thickness of just 20 mm.



Attic extension in Vienna

Building owner
Astrid Jeschko

Construction management
Heinrich Pelzelmeyer

Planning
Andreas Jeschko

Variotherm Systems
100 m²
MODULAR WALL HEATING/COOLING
200 m²
FLOOR HEATING VARIOCOMP

Robert Kisser, a Variotherm engineer, provided support from the start, including the planning for the heating and cooling systems. And when your father has his own plumbing company, it makes sense to make the most of a construction specialist's experience, not only on the roof, but also under it. That's why Astrid's father took on the entire construction management right from the start. Her husband Andreas Jeschko, a construction engineer, was responsible for the structural analysis.

The extension was completed very quickly, and after the first winter season, Mrs. Jeschko took stock of the heating costs. The room climate exceeded her expectations by far, but what about the costs? After making a quick calculation she realised that the heating bills certainly wouldn't bring them out in a sweat.

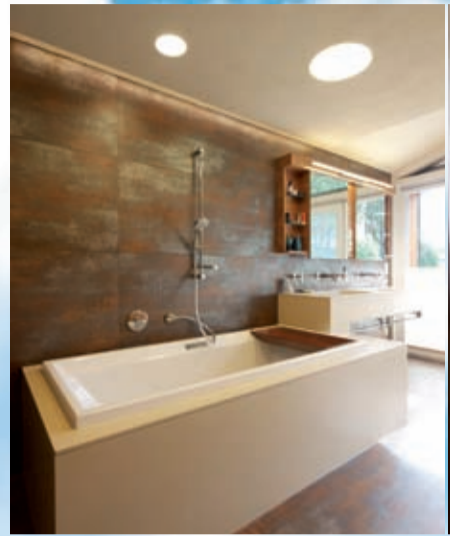
And how hot will it be in the summer? When asked about cooling, Mrs. Jeschko said that the wall heating/cooling module had already been installed, and that it only needed to be activated as and when needed.

She will wait and see what the first summer will feel like under the south-facing roof windows. If it gets too hot, the cooling system will be upgraded.

However, one thing is clear for Mrs. Jeschko: with Variotherm, the roof extension has worked better than she could ever have imagined.

Would you like to find out more?
Click here for a full image gallery:
www.variotherm.at/dachwien

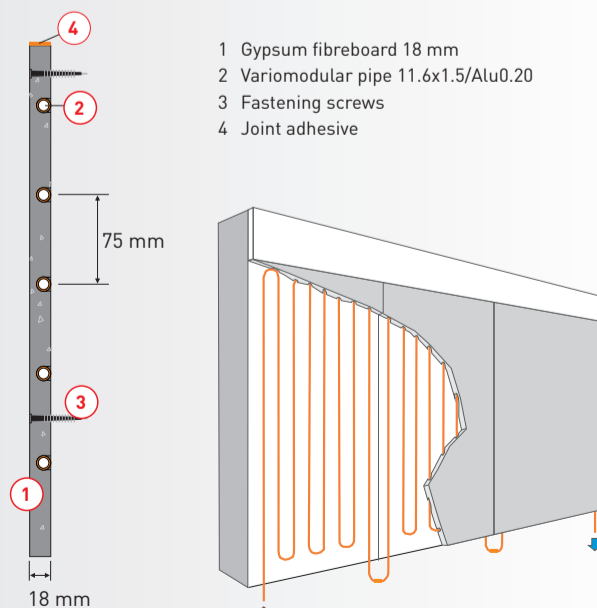
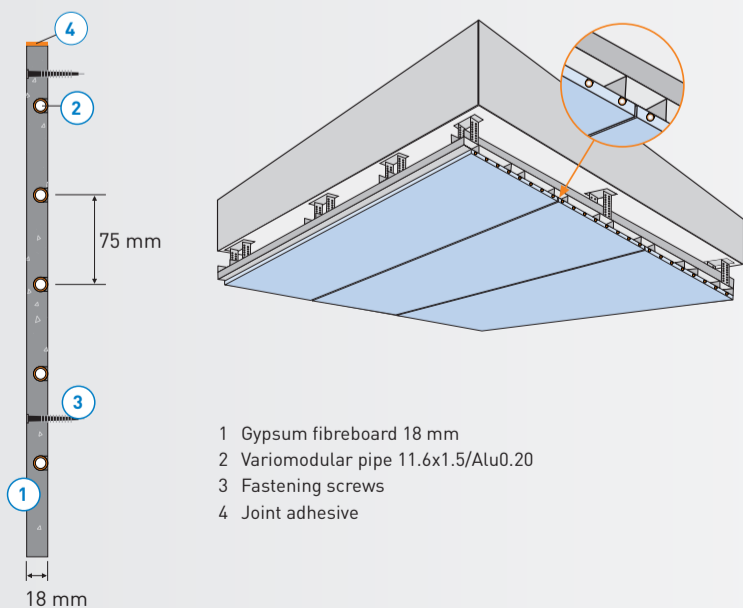




TECHNICS

Modular Ceiling Cooling/Heating

Modular wall heating/cooling



Attic extension in
South Burgenland

Architect / Technics
Lebensraumgestaltung Rupert Rauch
AT-8345 Straden
www.rauchsignale.com

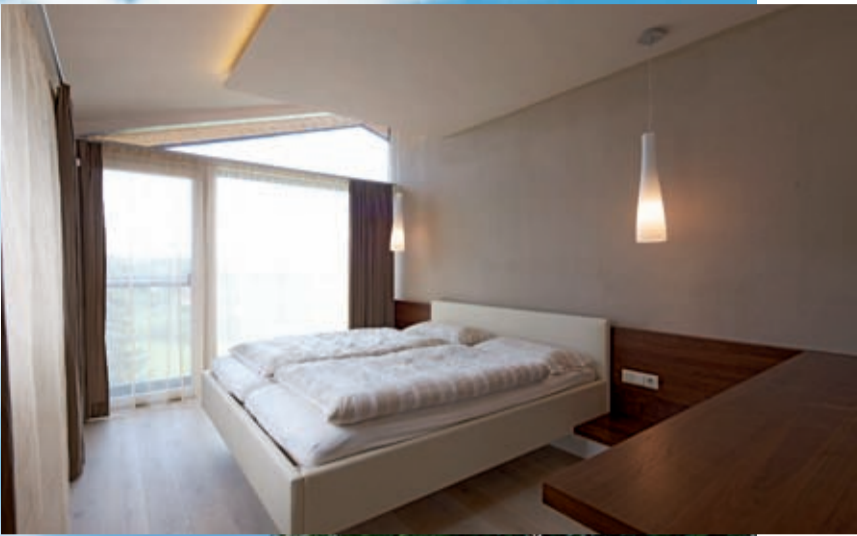
Interior Designer
Roland Schabetsberger
AT-8345 Straden
www.diewohnraumplaner.at

Variotherm Systems
100 m²
MODULAR-CEILING COOLING/HEATING
100 m²
MODULAR-WALL HEATING/COOLING
200 m²
FLOOR HEATING VARIOCOMP

top of a house

When the home of a family in south Burgenland became too small, they still didn't know what the future held. One thing was clear: the family was growing, the 3 children were getting older, and more living space was needed. They first had the idea of extending the attic space and putting the children up there.

However, the planning duo commissioned by the family, Rupert Rauch and Roland Schabetsberger, presented them with a different plan. They specialise in unconventional solutions, and had a few bold ideas.



First, the old roof had to come off. Completely off. It was too low to enable a suitable extension. For that reason, an additional house was simply set on top of the existing one. The entire new construction was insulated according to passive house standards. Naturally, intelligently designed surface heating/cooling systems from Variotherm ensure comfortable heat distribution. In order to increase the feeling of cosiness, a VarioComp floor heating system was laid under the ceramic tile floors. Hot water flows through the Variotherm Module-Wall pipes in the walls and provides a comfortable climate.

How is the system fired? Currently, a standard gas boiler is still in use, but this family thinks sustainable. For the next step towards the future, they plan to install a heat pump for a well-tempered house in 2012, which can also be used to cool the walls and ceilings.

While Rupert Rauch worked on the creation of the integrated concept and the building shells, Roland Schabetsberger devoted his efforts to the interior. He developed an unusual lighting concept and took care to ensure that the doors, which are flush with the walls, form a smooth surface with the hidden Variotherm Modular wall heating/cooling. The suspended ceiling in the bedroom, into which a Modular ceiling cooling/heating system is integrated, has been given indirect lighting. The office and children's rooms are also equipped with a wall and ceiling heating/cooling system.

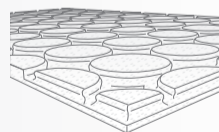
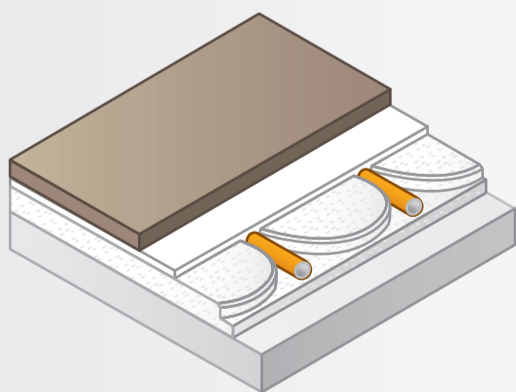
If you happen to pass a house on top of a house in south Burgenland, you're sure to be impressed!

Would you like to find out more?
Click here for a full image gallery:

www.variotherm.at/suedburgenland



VarioComp Floor Heating



Compact panel



Variotherm pipe
11.6 x 1.5/Alu 0.20



Compact filling compound





Mr. and Mrs. Schüler in the Casa Mobile. Masters in heating and cooling

A husband and wife team who run a company for packaging management and a wheelchair transport service with 20 employees need plenty of space. Kurt and Ursula Schüler came to this conclusion and decided to build a "house of movement". After a year of planning by Kurt Schüler, the new Casa Mobile was completed in just 8 months.

The Schülers wanted simply to create a space in which people who are wheelchair-bound can also benefit from diagnostics and therapy under one roof. For Mr. Schüler, the most important motto for the Casa Mobile is: everyone should feel comfortable. Since January 2011, a broad spectrum of medical and therapeutic services are on offer in the 650 m² area, from physiotherapy to orthopaedics to yoga.

The surface heating and cooling systems were installed by installation engineers HLSG from Leobersdorf, who also suggested using a Variotherm system. Alongside the approximately 140 m² System wall heating/cooling, the 570 m² VarioRoll floor heating system provides the right climate which every individual in the building can enjoy.

For Mr. Schüler, it was important to employ a local company. "A key factor in the rapid construction progress was also the Variotherm



Cooking on wheels - this kitchen, which allows wheelchair access, is a prime example of disabled access architecture.

engineer Peter Unterrainer, who shared the supervision of the site with the installer, Mr. Hafenschner from HLSG," he says.

Since people react to the climate very differently, it was particularly important to Mr. Schüler that each individual could create a climate that felt comfortable for them personally, using their own room thermostat. In some treatment rooms, the patients have to undress, and it is important that they don't feel cold.

The heat is provided by the ground water via a heat pump. And where does the energy for the heat pump come from? "Variotherm provides the heating and cooling, while we create the energy ourselves," says Kurt Schüler. When it comes to power, he creates his own electricity using a photovoltaic system.

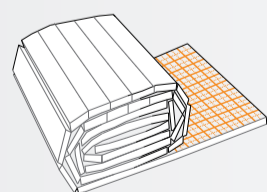
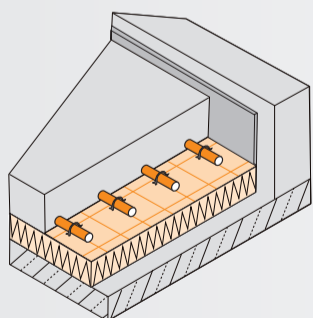
The new Casa Mobile is a place for movement. It is also a place where we at Variotherm once again had the opportunity to show what we can do. We wish the Schüler family every success in their new working climate!



TECHNICS

VarioRoll Floor Heating System

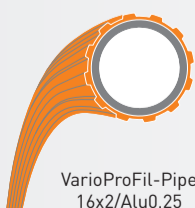
System Wall Heating/Cooling



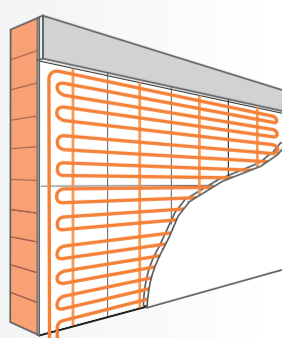
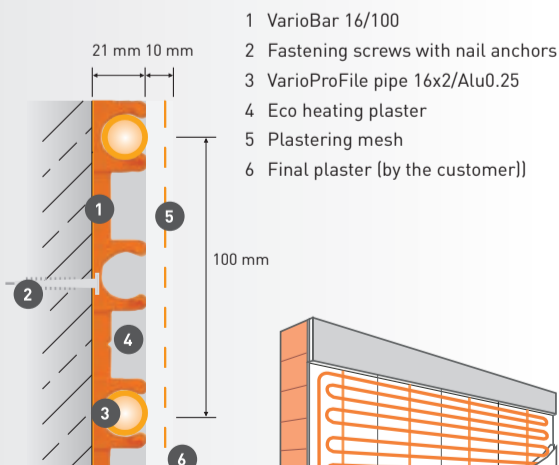
VarioRoll thermal insulation and impact sound insulation



Stapler pins



VarioProFil-Pipe 16x2/Alu0,25



Casa Mobile

Building owner
Kurt und Ursula Schüler

Planning and construction management
Kurt Schüler
AT-2700 Wr. Neustadt
www.haus-der-bewegung.at

Installer
HLSG Installations GmbH
AT-2544 Leobersdorf
www.hlsg-installationen.at

Variotherm Systems
136 m²
SYSTEM WALL HEATING/COOLING

570 m²
FLOOR HEATING SYSTEM VARIOROLL

Only one can show what passes through

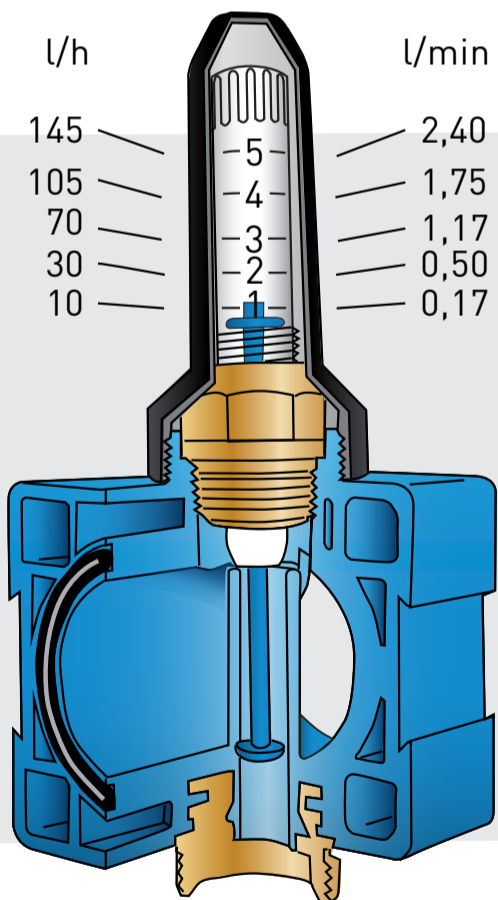
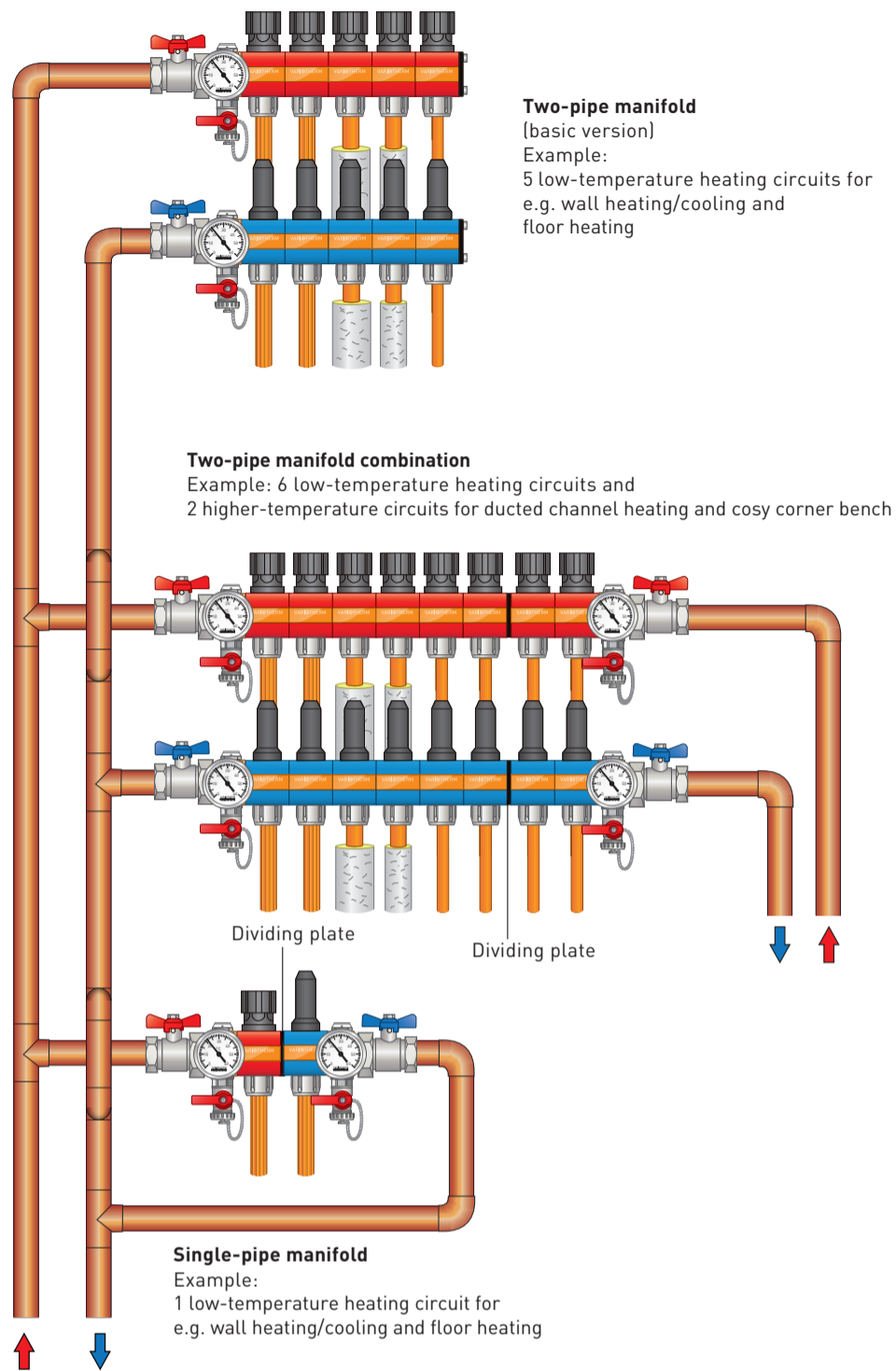
New at Variotherm:
The distribution manifold with flow indicator from 10 l/h upwards!

When it comes to connecting Variotherm surface heating/cooling systems to the energy source, such as a heat pump or biomass, you can't do better than use our distribution manifolds. They can simply do more! They are optimally designed for low temperature surface heating/cooling and thanks to the unique flow indicator, are also suitable for extremely low water quantities, such as those required in passive houses, for example.

Other advantages: our distribution manifolds don't come in sections, but as a whole product. They are assembled ready to use. Every one of them has been subjected to a pressure test with classification. All parts are self-sealing, from the thermometer through to the feed cock. With the VT distribution manifold series, even the pipe connection screws are mounted.

Full steam ahead through the locking valves!
To make sure nothing goes wrong during installation: ball valves and segments are clearly labelled red and blue for flow or return. The locking ball valves guarantee full flow without much pressure loss. They are ideal for e.g. heat pump systems with a low temperature spread. A further unique advantage: the labels for the distribution manifold outlets are prepared and can be individually designed. And the best thing: from now on, you can even download labels from our website!

Download for distribution manifold labels:
www.variotherm.at/vt-schilder



Advantages of Variotherm distribution manifolds at a glance

- Flow indicator 10-145 l/h optimally designed for low-temperature surface heating/cooling
- Pre-assembled and ready to use - no loose parts
- Pressure-tested and classified
- All parts are self-sealing
- VT series includes pre-mounted connection screws
- Ball valves with red (flow) and blue (return) labels and full flow
- Protective cap on nut
- Thermometer 0-60 °C optimally designed for low-temperature surface heating/cooling
- Labels for the distribution manifold outlets are prepared and can be individually designed

DID YOU KNOW...

... that Variotherm always delivers within 24 hours, because as the whole, everything is available for delivery from the warehouse?

DID YOU KNOW...

... that we invest 2.000 hours every year in research?

DID YOU KNOW...

... that Variotherm dispatches 2.7 million kg of material per year to its customers and partners?

Building services with Bavarian home comforts



Constanze Schuhmann

Anyone living in the Upper Palatinate, Lower Bavaria and Upper Bavaria regions who is interested in Variotherm heating and cooling surfaces will invariably come into contact with Schuhmann Haustechnik.

The company provides installers, advises engineering companies and end consumers, visits customers and if necessary will broker the right installer. They are also regularly represented at construction trade fairs.

The Schuhmanns are clear why they decided to become Variotherm partners: "The radiant heat principle convinced us just as much as the technical implementation in the Variotherm surface heating and cooling systems." Today, they are still happy to have made this decision. Even in their own home, they swear by the Variotherm system wall heating/cooling.

One thing that Uwe Schuhmann particularly values with Variotherm is the uncomplicated cooperation. "The guys at Variotherm are a young, committed team, who act fast and make quick decisions. They are innovative and are constantly developing and making improvements!"

We have nothing to add to that comment. We at Variotherm are proud of our partnership with Uwe Schuhmann.



Even in his own home, Uwe Schuhmann swears by the Variotherm System wall heating/cooling.



Uwe Schuhmann HAUSTECHNIK

Tel. +49 (0)9431 3819139

www.schuhmann-haustechnik.de

The coordinator

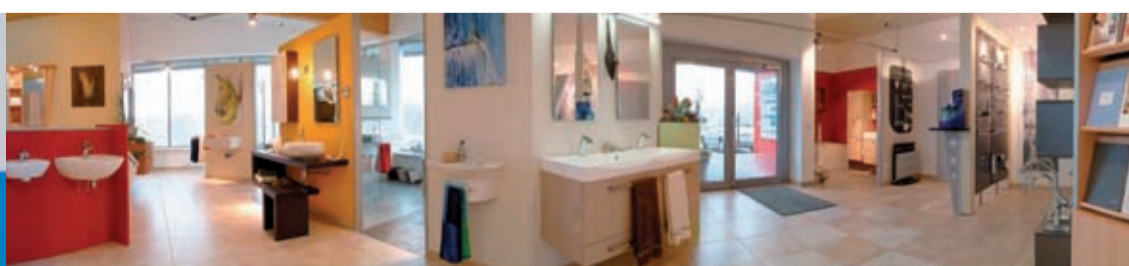
To the north of Ried in the Inn district, Eder, a company from Eitzing, is a competent partner for installing or refurbishing heating systems. Siegfried Eder, who founded the company in 2001, now works tirelessly with 10 employees to satisfy the often unusual requests of his customers.

His recipe for success: he delivers complete solutions whenever required from a single source, and when, for example, a bathroom needs refurbishing, he acts as a coordinator, organising painters, electricians and tilers who all contribute to creating the perfect end result. When it comes to heating, the trend is clearly moving towards surface heating/cooling systems. Here, the Variotherm product range has already provided the perfect solution over twenty times for Mr. Eder's customers.

The partnership with Variotherm is being further extended. According to Siegfried Eder: "The good cooperation over recent years and the quality of the products were the decisive factor when I opted for more intensive cooperation."



DER EDER
Das Bad - Die Heizung



DER EDER

AT-4970 Eitzing

Tel. +43 (0)7752 85566

www.der-eder.at



Fair Play in Friesland

Our corporate outing this year took us to our business partner Technea in Leeuwarden, Holland. It was a great success!

Not only, because the Variotherm team won the friendly international football game between Holland and Austria, but also because we won the match at the buffet! At Wim's big barbecue, the executive director of Technea, the Variotherm team, helped by a cheerleader troupe, proved that after their well-earned victory, they could also burn up a maxi-size portion of calories!

The next day was spent on the high seas - without getting seasick! Our day trip on a sailing boat took us through Friesland. We took in cultural and culinary highlights. On Sunday morning, the team at Variotherm had the opportunity to take a look around Leeuwarden alone. The programme for the afternoon was a sightseeing tour of the wonderful canals. The tour leader took us to the most interesting spots in Amsterdam. We all had a great time!



Our communications team - always on the ball!

Answering the phone, taking questions, dealing with complaints, taking on business and administrative tasks and making arrangements: the Variotherm communications team is always on the ball. All the threads lead to the communication team manager, Michaela Galavics. She regards her team as the "service centre" of the company. Michaela, who has two grown-up children, and her team work with great commitment and energy to make sure that company operations run smoothly, and to deal with the problems, big or small, of the employees.

Mrs. Papst has been working hard for us since 2007. Carina Nebel joined the company in March last year. Her job is to process contracts and to handle office-based sales. Both of our reliable colleagues provide an extremely efficient support for the Variotherm team.

The fourth colleague in the bunch, Eva Demuth, has been at Variotherm since 1997. As a financial trainer at the company, her passion is precise accounting, and no invoice remains unturned. When she has the time, she turns her attention to actively supporting the team in internal and external communications.



They don't have an easy job: our communications team is always on the ball!
(From left to right: Eva Demuth, Carina Nebel, Pamela Papst, Michaela Galavics)

Starship varioprise

varioinside

The heating room. Endless expanses. This is 2011. These are the adventures of Starship Varioprise en route to the IPEC, the interplanetary energy conference.



Mr. Unterrainer, we're flying at full speed. How are things looking with the module panel presentation?



Almost ready, Captain Watzek. According to my calculations, we're ahead of the others by light years!



Here Lieutenant Nebel. We have now reached 10 times the energy efficiency, and are ahead of the competition by galaxies.



What ace does the Starship Varioprise crew now have up its sleeve? Find out at www.variotherm.at/varioprise