

## WE ARE THE WORLD



### Variotherm goes back to school

Increasing attention is being paid to a good climate in kindergartens and schools in more and more European countries.

Pages 4 & 5 and pages 7 & 8

# Climate, children, future

I am not going to lecture anyone here about climate change and all its possible consequences. The climate that I am concerned with is the one in people's homes and offices.

The fact that many people now attach such importance to a pleasant climate at home – cosily warm in the winter, comfortably cool in the summer – represents a real climate change as regards people's attitudes to living. I also think it is great that increasing numbers of studies and investigations are showing just how crucial a pleasant indoor climate at work and in school facilities is for our health and performance.

A word about our children: a pleasant learning and working environment is particularly important for them. Only when these prerequisites are in place can children develop to their full potential. Communities, provinces and states that invest in their children are investing in their own future.

All in all, I am firmly convinced that we can only change the world's climate if every one of us makes a contribution. For this reason, we should provide our children with a positive climate in every way – now that would really be thinking ahead!

I hope you will enjoy reading this issue and will find it informative

Kind regards,  
Alexander Watzek



# Children of the revolution

Children are our future, and we should do our very best to encourage and support them in every possible way. Thankfully, a revolutionary reappraisal is currently taking place, particularly with regard to our children's health. Children need to grow up in a healthy environment and in a climate that helps them fully develop their abilities and talents.

And speaking of climate... the climate in kindergartens and schools is determined to a great extent by the quality of their indoor environments. It is simply more pleasant to spend time in buildings fitted with modern surface heating and cooling, and the children will learn more too – this is a fact that has now been backed up by investigations and studies.

With a pleasant indoor environment, our children feel better and learn better. Architects, planners and politicians responsible for education are all becoming increasingly aware of this. Against this background, Variotherm is proud to be able to present three showcase projects in this sector in this current issue: a state kindergarten in Lower Austria, a school in the Scottish Highlands and a Montessori kindergarten in Upper Austria.



Kindergarten, Raaba near Graz



Kindergarten, Bad Erlach



Waldorf-Kindergarten, Prien / Chiemsee



College of higher education, Eisenstadt





# Highland pioneers

The Highland Council, the local administrative body, has carried out a pioneering project in the wild northwest of Scotland: the newly constructed primary school in Acharacle was designed with sustainability firmly in mind. The new school provides modern, healthy and, above all, environmentally friendly facilities for everyone who wishes to work or learn here.

The school was planned by Gaia Architects, a Scottish team of architects who have earned a reputation as eco-pioneers. The principle that guided the design and construction of the school was one of 'eco-minimalism'. However, the Scottish architects made great use of Austrian expertise in implementing this philosophy.

The school was built using the 'Brettstapel' massive timber construction method, which was developed in Austria and requires no metal nails, dowels or adhesives. 'Brettstapel' constructions are open to diffusion to the interior and exterior, thus providing a pleasant indoor climate. Variotherm modular wall heating units were installed so as to maintain this agreeable indoor atmosphere during the heating period too.

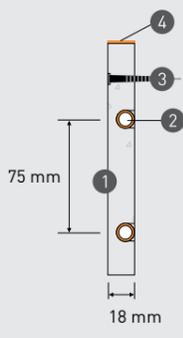
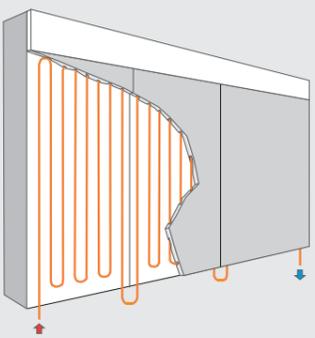
When asked why the client decided in favour of modular wall heating, the Variotherm representative Richard Handyside replied, "To provide high-comfort heating at lowest possible running cost".



## TECHNICS

### ModuleWall Heating/Cooling

More technics on [www.variotherm.at](http://www.variotherm.at)



- 1 Gypsum fibreboard 18 mm
- 2 VarioModule pipe, 11.6 x 1.5 mm
- 3 Fastening screws
- 4 Joint adhesive

#### Acharacle Primary School

Comissioned by: The Highland Council, [www.highland.gov.uk](http://www.highland.gov.uk)  
 Architect: Gaia Architects, Edinburgh, [www.gaiagroup.org](http://www.gaiagroup.org)  
 Installation: Corrie Plumbing & Heating/ROK Group  
 Representative Dealer: Construction Resources, London, [www.constructionresources.com](http://www.constructionresources.com)  
 Variotherm systems: 272 m<sup>2</sup> MODULEWALL HEATING/COOLING MWHK  
 Heating: Oil



Exterior Service: Alexander Watzek | Internal Service: Michaela Galavics | Technical Service: Thomas Baumgartner | Distribution: Marco Kepler | Agent: Construction Resources, Richard Handyside

THE VARIOTHERM TEAM FOR THE PROJECT:





# A tasteful cuvée

The Riegelhofer-Bernatz family of winegrowers is based in Poysdorf in the state of Lower Austria. Their house was built around 1900 and is located in the middle of the town centre. The front part of the house serves as living quarters, while the rear is used for winemaking activity. The house was comprehensively refurbished in 2006 and 2007 and brought up to modern living standards. The building facing onto the street has an intricate facade that is split up into numerous panels, all of which was preserved. A dormer was constructed over the entrance in order to allow light into the rooms in the newly converted attic space. Covered archways were reinstated in the courtyard area, while large wooden windows and doors and a terrace deck provide a modern level of living comfort.

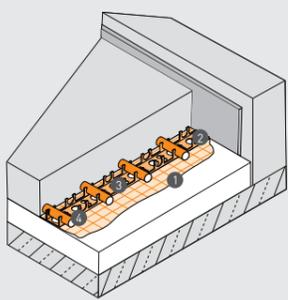
Thermal insulation was fitted to the outer facades, the ceilings in the attic, and the floors. Solar collectors supply the house with hot water during the summer. Variotherm system wall heating on the ground floor and Variotherm modular wall heating in the attic provide pleasant living conditions during the cold months of the year while at the same time keeping heating costs low. The stone floors in the house are heated by Variotherm floor heating systems.



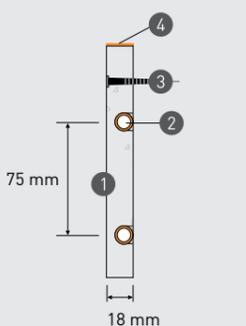
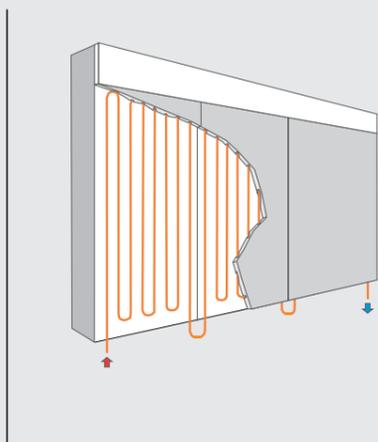
© Martin Rührnschopf

## TECHNICS VarioRast Floor Heating System

## ModuleWall Heating and SystemWall Heating/Cooling

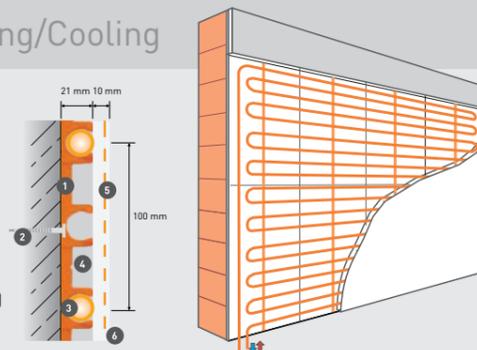


- 1 Grid foil
- 2 VarioBar K16/100
- 3 Fixing needle
- 4 VarioProFile pipe 16 x 2 mm / aluminium 0.25



- 1 Gypsum fibreboard 18 mm
- 2 VarioModule pipe 11.6 x 1.5 mm
- 3 fastening screws
- 4 Joint adhesive

- 1 VarioBar 16/100
- 2 Fastening with nail anchors
- 3 VarioProFile pipe, 16 x 2 mm
- 4 Eco heating plaster
- 5 Plaster lattice
- 6 Final plaster (provided by customer)



### Winemaker's house in Poysdorf

Commissioned by: Familie Riegelhofer-Bernatz, [www.riegelhofer.at](http://www.riegelhofer.at)  
 Architect: Martin Rührnschopf, AT-1130 Vienna, [www.ruehrnschopf.at](http://www.ruehrnschopf.at)  
 Installation: Pech, AT-2170 Poysdorf  
 Planning/Construction: TB Ing. Josef Unger, Construction and energy consulting, AT-1030 Vienna  
 Variotherm systems: 92 m<sup>2</sup> SYSTEMWALL HEATING SWHK 3  
 20 m<sup>2</sup> MODULEWALL HEATING/COOLING MWHK  
 45 m<sup>2</sup> FLOOR HEATING SYSTEM VarioRast  
 Heat Source: Pomace-pellet oven



Exterior Service Robert Kissner | Internal Service Pamela Papst | Technical Service Monica Biacsics | Distribution Dan Timofte

THE VARIOTHERM TEAM FOR THE PROJECT:



# Comfort is childs play!



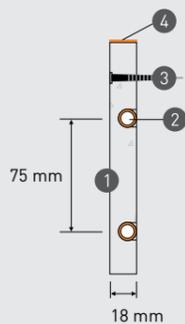
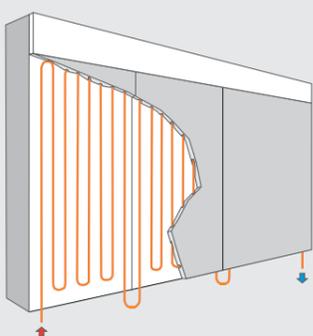
In 2007, the administrative district of Langenzersdorf in Lower Austria decided to extend an existing kindergarten. The main requirements that the architect Kurt Schmid had to fulfil were: an additional storey was to be added to the existing one-storey building; the entire new building was to fulfil passive house standards; and the extension work had to be completed in a period of 2½ months (corresponding to the kindergarten's summer recess) – Variotherm's modular wall heating was the perfect solution here! The lower storey was completely 'enclosed' by wooden elements fitted around it, and the upper storey was constructed on top of this, also using wooden elements. The house is heated by Variotherm modular wall heating and floor heating systems that are supplied from a buffer storage tank. Operating in parallel, there is also a controlled ventilation system with a heat exchanger and an upstream 80-m-long geothermal exchanger. There is an additional small-sized, gas-fired condensing boiler system to cater for demand peaks. Specially coated, large-scale insulating glass units make it possible to use passive solar energy, and they also create a direct link to the outdoor space and the garden. All of this provides for a very pleasant indoor environment in the new state kindergarten – a climate where children will really feel comfortable!



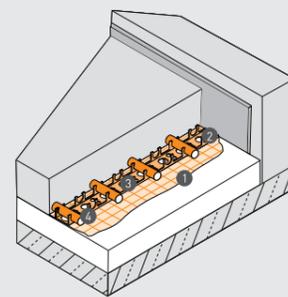
## TECHNICS

### Module Wall Heating/Cooling

### Floor Heating VarioRast



- 1 Gypsum fibreboard 18 mm
- 2 VarioModule pipe, 11.6 x 1.5 mm
- 3 Fastening screws
- 4 Joint adhesive



- 1 Grid foil
- 2 VarioBar K16/100
- 3 Fixing needle
- 4 VarioProFile pipe 16 x 2 mm / aluminium 0.25

#### Langenzersdorf State Kindergarten

Architect: Mag. Kurt Schmid, AT-2103 Langenzersdorf  
 Installation: Quasnitschka, AT-2000 Stockerau, [www.quasnitschka.at](http://www.quasnitschka.at)  
 Variotherm systems: 40 m<sup>2</sup> FLOOR HEATING SYSTEM VarioRast  
 350 m<sup>2</sup> MODULEWALL HEATING MWHK  
 Heating: Ventilation system with geothermal exchanger, buffer storage tank, gas-fired condensing boiler  
 Hot water: Solar collectors



Exterior Service Robert Kisser | Internal Service Michaela Galavics | Technical Service Manfred Thallermayr | Distribution Tibor Horvat

THE VARIOTHERM TEAM FOR THE PROJECT:

# Living foundations and happy, lively children.



A kindergarten building that is spectacular in every possible way has been built in the administrative district of St. Lorenz, in the Mondsee area in the state of Upper Austria. The building's foundations feature a fundamental innovation: the 270-square-metre building is supported by living trees! Ash trees are used at those points required by the supporting system, in a manner similar to the supporting columns on a boathouse. Once the trees had properly taken root and grown to a sufficient thickness, they were cut down to the height required for the building. The trees then began to grow out to the sides and have continued to do so. The supporting construction of the building is mounted on the horizontal cut surfaces of the trees.

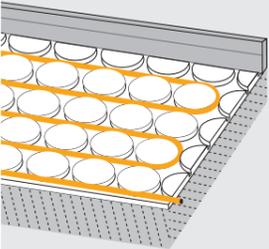
The entire kindergarten is a timber construction based on noggling pieces. The building fulfils the low-energy standard thanks to its core insulation with sheep's wool, its interior fittings using triple-layer spruce boards, and its outer casing with larch boards. 240 square metres of Variotherm floor heating provide cosy warmth inside. The architect opted for the thin, 20-mm VarioComp floor heating system for three reasons: firstly, because conventional floor heating systems were not compatible with the drywall fittings; secondly, because it reacts very quickly, which is an important factor considering the large glass surfaces on the kindergarten; and thirdly, because the VarioComp floor heating system is acceptable from a health and safety viewpoint.



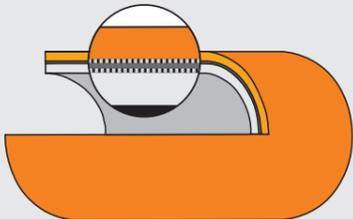
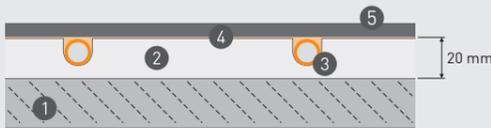
© Montessori-Waldkindergarten

## TECHNICS VarioComp Floor Heating System

More technics on [www.variotherm.at](http://www.variotherm.at)



- 1 Substructure
- 2 Compact panel
- 3 VarioModule pipe, 11.6 x 1.5 mm
- 4 Compact filling compound
- 5 Floor covering



**VarioModule pipe 11.6 x 1.5 / 0.20 aluminium**  
 5-layer composite pipe  
 interior 0.20 mm aluminium pipe – extremely easy to bend

### Montessori-Waldkindergarten in St. Lorenz

Commissioned by: Montessori-Waldkindergarten, AT-5310 St. Lorenz  
 Architect: Ebner BauGmbH & Co KG, AT-5310 Mondsee  
 Installation: Fa. Haustechnik Vöcklabruck, AT-4840 Vöcklabruck  
 Variotherm system: 240 m<sup>2</sup> FLOOR HEATING SYSTEM VARIOCOMP  
 Heating: Biomass



Exterior service: Karl Gruber  
 Internal Service: Michaela Galavics  
 Technical Service: Monica Biacsics  
 Distribution: Vasile Purcariu

THE VARIOOTHERM TEAM FOR THE PROJECT:

# Creative. Alternative. Innovative.



Hagleitner started out in 1928 in Kirchberg, Tirol, as a metalworking shop. At the end of the 1930s, the company expanded its activities to include gas and water installations and the production of heating systems. From 1969 onwards, the company increasingly concentrated on the installation of heating, gas and water equipment. Andr  Hagleitner 'the Fifth' was the head of the firm at the time and was very interested in alternative energy sources. In 1972, he produced the first series-manufactured heat pumps to be made in Austria. Today, Hagleitner is one of the leading names in the west of Austria for geothermal energy, solar energy, heating, ventilation and sanitation. Hagleitner offers its customers a 'care-free package', which includes all-round consultation and individual planning right through to high-quality implementation, with Hagleitner's professionals taking care of everything. All from a single source, in first-class quality, and at a reasonable price too! The company's philosophy is thus a perfect match for that of Variotherm. As a Variotherm partner, Hagleitner has installed around 30 Variotherm comfort systems over the last three years.



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# Our shop in Bottrop



The Variotherm partner VWS-GmbH is based in Bottrop in the German federal state of North Rhine-Westphalia. Founded by Markus and Monika Bregulla in 1989, the company specialised in service and maintenance for heat exchangers and drinking water systems: from single-family houses with fresh water systems right through to Legionella-free drinking water systems for clinics such as the University Hospitals in Munich and Cologne and for the European Parliament in Brussels.

Markus Bregulla came to know of Variotherm at the start of 2008. A short time later, he and his wife Monika visited Variotherm's headquarters in Leobersdorf. Here, they were able to see for themselves the innovative ideas and high quality behind Variotherm's products and, on this basis, they decided to become agents for Variotherm.

VWS also conducts short installation seminars on site at building sites. The trained installation service technicians explain just how easy it is to use Variotherm products, covering both theoretical and practical aspects. Markus Bregulla and his team are delighted with the growing demand and increasing enthusiasm among specialist companies for Variotherm's products, and also with the satisfaction levels among their end customers. Comfort, cosy heating and pleasant cooling are being provided in and around Bottrop in line with VWS's motto whereby "The big players don't eat the small ones, but instead the fast ones eat the slow ones".

And speaking of coolness: the city of Bottrop can certainly compete with Variotherm's products in terms of innovation, as demonstrated by the longest indoor ski piste in the world with a length of 640 metres and a width of 30 metres. Enthusiasts can go skiing or snowboarding here 365 days a year.

**VWS-GmbH**  
*Wir k nnen DAS...*

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DE-46240 Bottrop  
Tel.: +49 / 2041 / 988520  
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info@vws-gmbh.eu



www.variotherm.at

# It pays to have a look!

Have you already taken a look at Variotherm's newly designed website? And we don't mean in the last few months, we mean recently, as in now! If not, then it's high time you did, as Variotherm's website is no dusty archive of information where you can only find out about yesterday's news. On the contrary: the website is continually being maintained, expanded and extended. One small tip: just take a look at our new glossary! Here you will find an A-Z of the most important technical and specialist terms used in our field. Interesting and exciting at the same time!

# We can help you work it out!

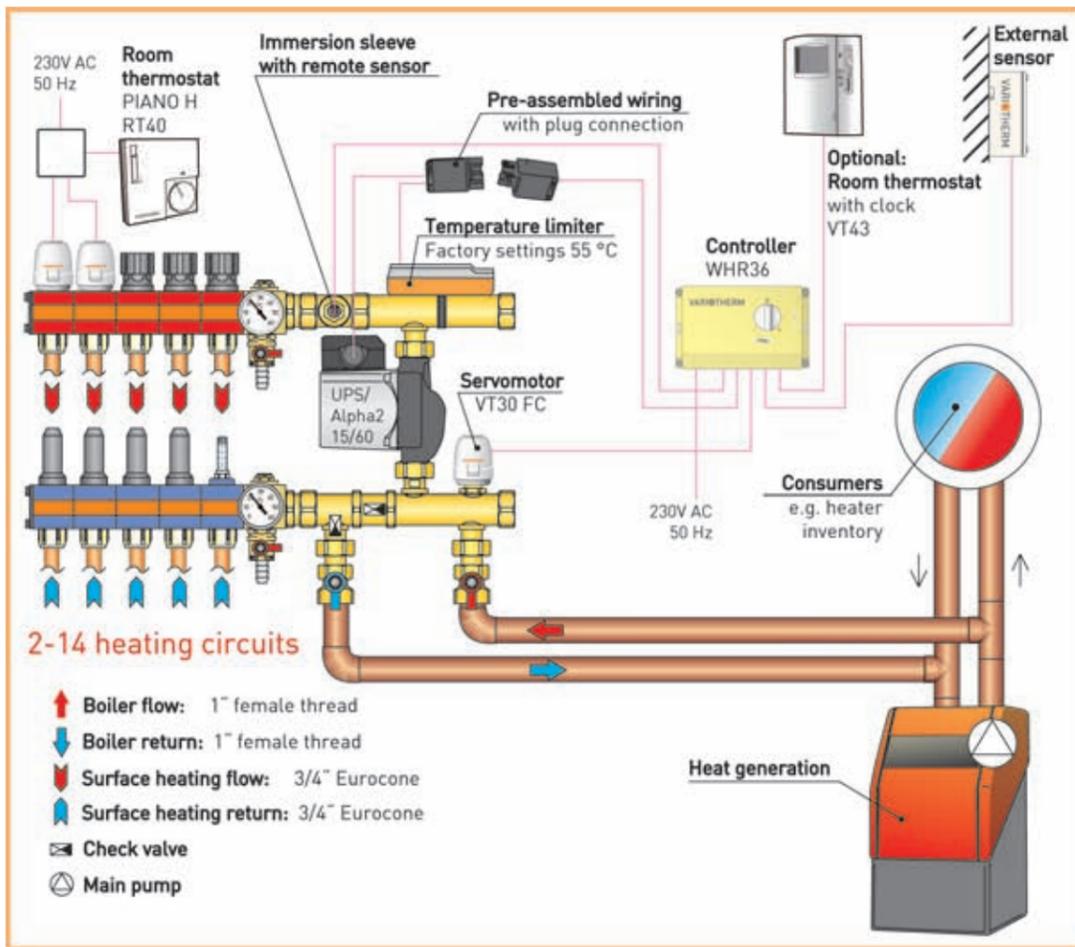
This new double CD is a hit! The software on these CDs will help you to accurately calculate heating and cooling areas for Variotherm projects. Order them now!



# New & simple

No matter what the weather... Variotherm is now offering a weather-guided control station. It is an ideal addition for the PVST pumped manifold and the PMST microstation with pump. The new weather-guided control station offers the following advantages:

- Very easy to operate
- Components tailored exactly for PVST and PMST
- Fully pre-programmed
- Heating curves (difference) optimised for surface heating
- Fits perfectly into the Variotherm manifold box



18. - 21. February 2010

3. - 7. March 2010

10. - 13. March 2010

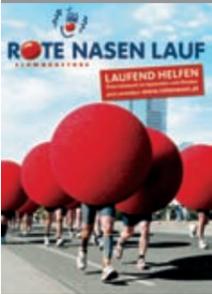
14. - 17. April 2010



## Vienna & Wels, Essen & Nuremberg

It's always worth visiting Variotherm at trade fairs! We look forward to seeing you at the following events:

- Bauen & Energie, Vienna, 18 - 21 February 2010, Hall C, Stand C0501
- Energiesparmesse, Wels, 3 - 7 March 2010, Hall 20, Stand 330, 3 - 4 March are days reserved for industry visitors
- SHK, Essen, 10 - 13 March 2010, Hall 1, Stand 1.0.109
- IFH/Intherm, Nuremberg, 14 - 17 April 2010, Hall 8, Stand 8101



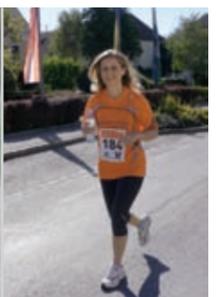
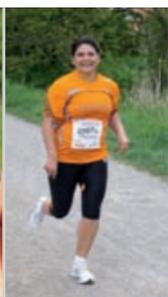
# Doing good on the run

"Get moving to get everyone moving together" was the motto for the Red Nose Run held on 19 September 2009 in Leobersdorf. 'Everything goes' applied to this event: strolling, walking briskly, simply having fun – participants could do as they pleased. After all, being the fastest was not the goal of this charity run; much more important was the fact that every participant donated money before setting off. Sponsors also contributed based on the total number of metres run. And what happened to the money collected? It went to the so-called Red Nose Clowndoctors, who are active in 35 hospitals all over Austria. They make sick children and adults laugh and help to spread a little joy throughout the hospitals. Monika Biacsics and her daughter Lara, Michaela Galavics, Pamela Papst and family, Marco Kepler, Robert Kissner, Manfred Thallermayr, Peter Unterrainer and family, and Alexander Watzek and his family all laced up their running shoes for this good cause and took part.



## VARIOTHERM SPORTS

The Variotherm team has already begun training for the Ironman Austria Triathlon in 2010. The team preparing itself for this monumental challenge consists of: Variotherm's production manager Robert Mader, the Variotherm customer Manfred Kowald, the 'ace sportsman' and company associate Alfred Schlögl, and Alexander Watzek. By the way, the Variotherm employees Michaela Galavics and Pamela Papst are already busy training for the Vienna Marathon in 2010.



### NEW IM TEAM – Creative support



**Alexander Schauer** was born in Vienna in 1984. After studying electrical engineering at the HTL in Wiener Neustadt, he started working as a designer for 3D CAD applications at a mechanical engineering company. He found out about Variotherm from a job offer on the Internet where the company was looking for a technician with a good feel for graphics. Since the start of September, he has been a member of the Variotherm team. He very much likes his new job preparing technical documentation, and is free to bring his own ideas and creativity into play here. In his free time, Alex Schauer goes to the gym three or four times a week to keep fit and strong. He is also interested in electronic music and even creates some of his every now and then.

# Food for the heart and the mind!

Variotherm is setting trends with its new, daring initiatives. In keeping with the "Now is the time!" motto, we are investing more and more in training and further education for the Variotherm team.

For example, the entire company has been working with an external coach for some time now with the goal of preparing everyone for the challenges to come. In addition, Variotherm employees are participating in training courses all the time to improve their skills. These courses cover a broad spectrum of topics, ranging from specialist technical subjects to advanced training that develops interpersonal skills. In-house workshops have been taking place at Variotherm for a number of years to help us achieve continuous improvement and innovation. Huge amounts of brain power are being invested in specially chosen 'project groups' with the aim of providing our clients even better and more efficient products and services.

Variotherm is convinced that the company's most precious asset is the expertise and dedication of its own employees. After all, only with the best training and highest levels of motivation can we master the challenges that tomorrow will bring. And this means putting our hearts and our brains into our work!

