



# NEWS

Exclusive designs and perfect technology

## International trade fairs

Visit the HERZ stands at the large international trade shows. The HERZ-team is there to advise you on our technical innovations and the whole product range. And we are of course offering you that popular sustenance once again in 2005 – a nice cup of coffee at the stand!

ISH 15.3 – 19.3.2005



Frankfurt am Main, Germany  
**HERZ Armaturen**  
 Hall 10.1, Stand B41  
**HERZ Feuerungstechnik**  
 Hall 9.1, Stand E82

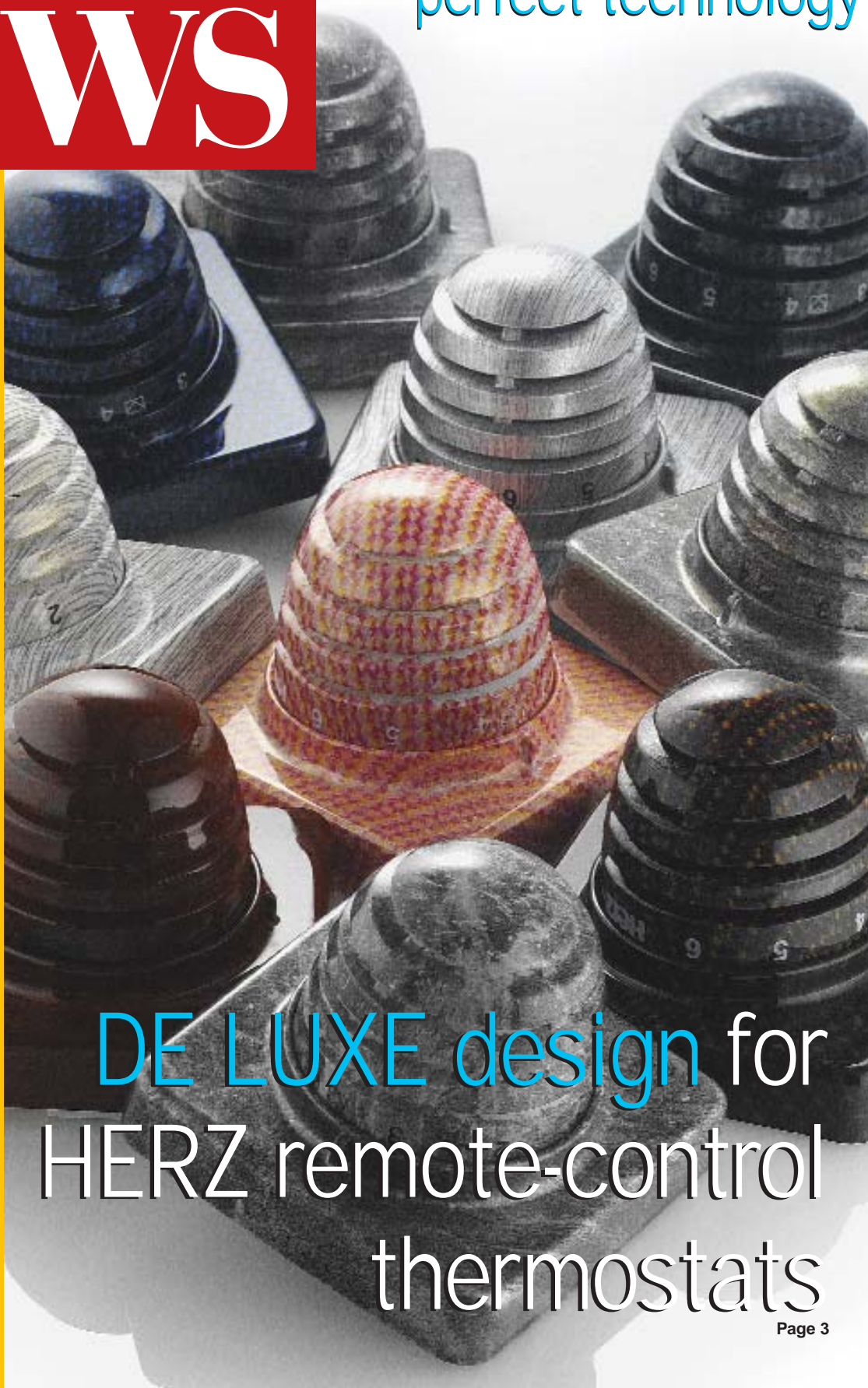
ERG 26.4 – 29.4.2005

Vienna, Austria,  
**HERZ Armaturen** and  
**HERZ Feuerungstechnik**  
 Hall C, Stand 0309



\* International trade fair for house and building technology

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DE LUXE design for  
 HERZ remote-control  
 thermostats

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NEW • NEW • NEW • NEW • NEW

*Dear customers, partners and valued friends of HERZ,*

HERZ Armaturen is making the most of the opportunity to present the company and its products to an international audience at trade fairs worldwide. Looking at our trade fair calendar for the first half of the 2005, you will be struck by the large number of events we are attending and the variety of countries in which we are exhibiting. As well as the large international trade fairs within the German-speaking region, ISH (in Frankfurt am Main) and ERG (formerly Aquatherm) in Vienna, there are many national trade fairs which are particularly important for the individual countries. We would be delighted to welcome you to our stands at one or several of these events, where, along with the usual detailed product information we will also be able to offer you once again a little sustenance of a culinary nature!

Once again there is a large range of trade fair highlights and product innovations to be seen in 2005 from HERZ Armaturen and HERZ Feuerungstechnik. A particularly fine innovation in the truest sense of the word is the new finishes for the HERZ remote-controlled thermostats. From walnut or marble design to graphic patterns in different colours, there is the right item to complement your style of living. Should the variety of designs on offer not completely match your personal taste, we are also open to individual manufacture.

Another central theme of our trade fair presentations is the new HERZ systems. HERZ offers a comprehensive programme of system components for installing, insulating and fixing when installing, heating and air conditioning equipment in walls, floors and ceilings.



The systems for room temperature control and floor temperature control are presented in detail in this edition of HERZ NEWS and will naturally also be presented at our stands.

We hope that you enjoy reading this edition of HERZ NEWS and look forward to your visit to our stands.

Yours,



Dr. Gerhard Glinzerer,  
Managing Director

Literature from HERZ

**10-year progress report: Study on the re-development of heating equipment – the Kórnaró (Slovakia) project.**

The central approach of HERZ Armaturen is to save energy, increase comfort and protect the environment with the help of environmentally friendly products and technologies. A particularly impressive project that documents the achievement of all these objectives is the Kórnaró re-development project in Slovakia, for which the progress report is now available. Taking experiences over 10 years which are summarised in this assessment, the report presents comprehensive documentation that is unique in this form. From April 2005 the report is available for downloading at our homepage [www.herz-armaturen.com](http://www.herz-armaturen.com).

**Energy-saving using thermostats**

In spring 1995 the HERZ Slovakian subsidiary was commissioned to renovate the heating in 92 buildings with almost 4,000 apartments. All the apartments were re-fitted with HERZ series 90 thermostatic valves and fitted with HERZ 7260 thermostatic heads. In order to guarantee precise distribution of water, each building was equipped with HERZ STRÓMAX M circuit control valves.

**Other projects being carried out and planned**

Similar projects to the one in Kórnaró have been and are currently being carried out across the whole of Slovakia. Likewise re-fits are being planned in other eastern European countries and CIS states. Thanks to comparable construction and similar heating systems, re-fitting like that carried out in Slovakia is also possible and makes sense in the Ukraine, Russia and many other states. Thus greater benefits can be achieved with minimal outlay in many respects, bringing energy and cost-saving, increased living comfort and burdening the environment less.

**HERZ technical literature**

Comprehensive HERZ technical documentation is also available on the following subjects, which we will introduce to you in more detail in the next issue of HERZ NEWS:

- Hydraulics in heating, air-conditioning, ventilation and sanitation.
- The heart of hot water heating – hydraulics.
- Floor heating systems.



**MASTHEAD**

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New designs and colours for every taste

## DE LUXE design for HERZ remote-controlled thermostats (9330 DL)

The development of the new finishes for the HERZ remote-controlled thermostat is the result of a frequently expressed customer request. The variety of interior décor that abounds nowadays requires more than a white thermostat and white radiator. HERZ offers the DE LUXE series of thermostats in many colour variants which are suitable for the new designer radiators. The logical complement to this is the HERZ DE LUXE remote-controlled thermostatic head in new and exciting finishes.

**H**ERZ customers can find the right design of fitting for their personal style of living. HERZ offers the correct match for fine wooden boarding, elegant marble tiles, colourful rooms for young people or exquisite designer furniture. The range includes the variants marble, walnut, carbon and graphic patterns.

Thanks to a special manufacturing process it is possible to mix patterns and colours. For example, the marble design can be produced in various shades of grey to give just the right tone.



Walnut is one of the new HERZ DE LUXE remote-controlled thermostat finishes.

### Technical data and components

The basis for the DE LUXE design is the HERZ remote-controlled designer thermostatic head (9330) in white. The control consists of a thermostat with a liquid sensor (hydro-sensor), a capillary pipe (4 lengths)



The HERZ designer remote-controlled thermostatic head, like the DE LUXE design is available in the M28 x 1.5, "H" and NEW "D" (suitable for use with Danfoss thermostats) connection dimension.

and a valve cap. The nominal value range is between 6°C and 28°C and frost protection is activated below 6°C. It is possible to limit or lock the nominal set range. The capillary is available in lengths 2m, 5m, 8m and 10m.

### Areas of use

The HERZ remote-controlled thermostat can be used where direct control by thermostatic head on the radiator is not possible. This is the case, for example, in built-in placements, for areas covered by curtains, or where there is a lack of space or an awkward position (direct sunlight).

### Types of connection

The DE LUXE as well as the designer variants are available in three connection dimensions:

- M28 x 1.5 (suitable for HERZ valves).
- "H" – M30 x 1.5 (suitable for use with Heimeier thermostats).
- NEW: "D" (suitable for use with Danfoss thermostats).

# HERZ TRADE FAIR NEWS

**HERZ Armaturen presents numerous extensions to the existing product range at the 2005 trade fairs.**

## STRÖMAX GF and NEW flanged strainer (dirt screen)

The HERZ circuit control valve product group with differential pressure measurement in flat design is also being extended. The new STRÖMAX 4218 GF in straight design with measuring valves (1 4218 70-78) in sizes 50 to 300 will be available during the course of 2005. The design is GJL 250 grey cast metal casing according to EN 1561, flanges according to EN 1092, PN 16; design length according to ÖNORM EN 558-1, basic range 1, blue painted. Valve upper part GJL 250 grey cast metal with non-climbing spindle, spindle seal using 3-ply O-ring. Digital display pre-set-

ting adjuster. Test points and pre-setting marker are also included. Test points can be mounted left or right as required.

Also new is the HERZ strainer (dirt screen) with 0.75mm mesh with flange connection (1 4111 83-88).



HERZ strainer

This is available in sizes 25 to 80. Design – with fine stainless steel mesh, casing made of GJL 250 grey cast metal according to EN 1561, flanges according to EN 1092, PN 16; de-



STRÖMAX 4218 GF

sign length according to ÖNORM EN 558-1, basic range 1, blue painted. Lid with drainpoint and plug 1/2 bore, 1/4 RP with cap with differential pressure measurement. Test points can be ordered separately.

## NEW Mini thermostatic heads



The Mini thermostatic heads product group has been complemented by new design variants. As well as the Mini Classic with vertical openings, new to the programme are the Mini Turbo variants with angled slits and the Mini GS with straight slits in white. There is also the Mini GS DE LUXE in sparkling chrome from the DE LUXE series, which combines perfectly with the HERZ 3000 designer covering in chrome. The Mini line is complemented by the Mini GS for MMA valves and the Mini GS return flow temperature limiter.

## Straight design control valve

The logical complement to the three-way mixing and diverting valve (7762/7763) product group is the HERZ straight pattern control valve (7760) with graded KV values for chillers in air-conditioning (DN 10, 15 and 25). The valve is used in the supply



### Technical data 7760

| DN | kvs             |
|----|-----------------|
| 10 | 0,4 0,6 1,0 1,6 |
| 15 | 2,5 4,0         |
| 25 | 5,1             |

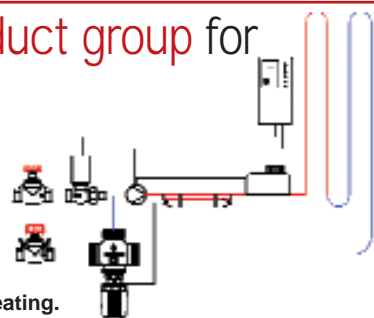
- Differential pressure maximum 2.5 bar
- PN 16, 120°, lift 3.7 mm
- Body made of dezincification brass

to radiators and cooling equipment for room temperature control (e.g. fan coils and chilled ceilings) with variable volume flows.

## Additions to the Calis product group for floor heating

The Calis TS-RD three-way distribution valve (7761 40\_41) with thermostatic upper part and 100% distribution is complemented by the sizes DN 25 and DN 32.

Application example – control of combined radiator and floor heating.



## HERZ Teplomix

The new HERZ Teplomix valve is a self-acting thermic three-way valve for maintaining high return temperatures in central heating installations up to 50kW. It prevents the occurrence of corrosion damage caused by return temperatures that are too low in boilers.



### Function

The Teplomix (61°C) self-acting thermic three-way valve mixes sufficient boiler return water with flow water to guarantee that the minimum return temperature is always 61°C.

The throttle valve should be adjusted so that this minimum return temperature is reached in full load operation.

### Teplomix product information

- KV values DN25 9m<sup>3</sup>/h, DN32 12m<sup>3</sup>/h.
- Mixing range from 61–73°C, maximum temperature 120°C.
- CC754S-GM brass casing. Turned parts made of CW641N or CW617N.
- Any installation position can be achieved, i.e. no plates to be turned around, no internal parts to move.
- The valve is fitted with a drain plug. A boiler filling and emptying valve can be installed instead of the plug if required, for flushing, filling or draining.
- Easy maintenance – the valve insert can be removed using an open-end spanner. One insert can be used for several sizes of valve.

## HERZ trade fair planner – first half of 2005\*

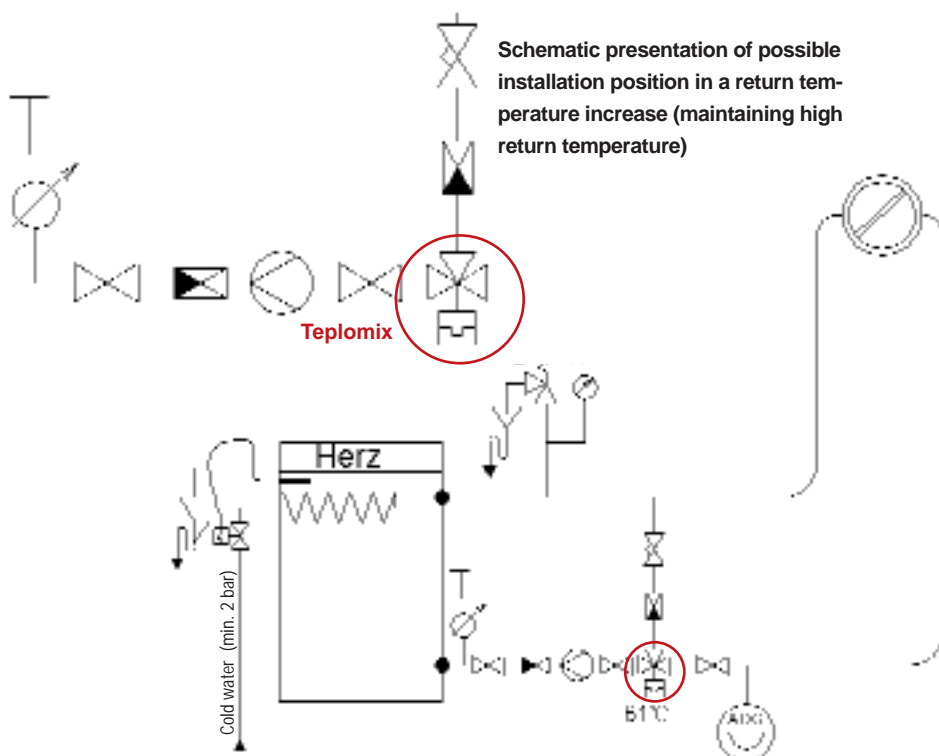
As well as ISH in Frankfurt and ERG in Vienna, HERZ Armaturen and its products are represented worldwide at numerous other trade fairs. The following trade fair planner gives you a summary of the trade fairs which we are attending in the first half of 2005. Visit us at one of our stands – your HERZ representative will be delighted to see you!

| Date 2005                                       | Trade fair                 | City                         |
|---|----------------------------|------------------------------|
| 15 <sup>th</sup> to 19 <sup>th</sup> March      | ISH Frankfurt              | Frankfurt, Germany           |
| 15 <sup>th</sup> to 19 <sup>th</sup> March      | ISH Frankfurt              | Frankfurt, Germany           |
| 15 <sup>th</sup> to 19 <sup>th</sup> March      | Bulgaria Building Week     | Sofia, Bulgaria              |
| 16 <sup>th</sup> to 18 <sup>th</sup> March      | Atyrau Build               | Atyrau, Kazakhstan           |
| 17 <sup>th</sup> to 20 <sup>th</sup> March      | Tyrol spring trade fair    | Innsbruck, Austria           |
| 31 <sup>st</sup> March to 3 <sup>rd</sup> April | Dornbirn spring trade fair | Dornbirn, Austria            |
| 4 <sup>th</sup> to 7 <sup>th</sup> April        | MosBuild                   | Moscow, Russia               |
| 4 <sup>th</sup> to 7 <sup>th</sup> April        | Rebuild Iraq               | Amman, Jordan                |
| 5 <sup>th</sup> to 9 <sup>th</sup> April        | Coneco                     | Bratislava, Slovakia         |
| 6 <sup>th</sup> to 9 <sup>th</sup> April        | Termoidraulica             | Padua, Italy                 |
| 19 <sup>th</sup> to 23 <sup>rd</sup> April      | Interstroyexpo             | St. Petersburg, Russia       |
| 19 <sup>th</sup> to 23 <sup>rd</sup> April      | Interklima                 | Zagreb, Croatia              |
| 20 <sup>th</sup> to 22 <sup>nd</sup> April      | Bishkek Build              | Bishkek, Kyrgyzstan          |
| 26 <sup>th</sup> to 29 <sup>th</sup> April      | ERG Aquatherm Vienna       | Vienna, Austria              |
| 26 <sup>th</sup> to 29 <sup>th</sup> April      | ERG Aquatherm Vienna       | Vienna, Austria              |
| 3 <sup>rd</sup> to 7 <sup>th</sup> May          | Hungarotherm               | Budapest, Hungary            |
| 11 <sup>th</sup> to 14 <sup>th</sup> May        | Aquatherm Kiev             | Kiev, Ukraine                |
| 23 <sup>rd</sup> to 26 <sup>th</sup> May        | SHK Moscow                 | Moscow, Russia               |
| 24 <sup>th</sup> to 27 <sup>th</sup> May        | Interklima                 | Sarajevo, Bosnia-Herzegovina |
| 26 <sup>th</sup> to 29 <sup>th</sup> May        | BIOEM                      | Grossschönau, Austria        |
| 31 <sup>st</sup> May to 3 <sup>rd</sup> June    | BulTherm                   | Sofia, Bulgaria              |
| 29 <sup>th</sup> June to 3 <sup>rd</sup> July   | Wieselburg trade fair      | Wieselburg, Austria          |

Script colour RED: Trade fair participant HERZ Armaturen

Script colour GREEN: Trade fair participant HERZ Feuerungstechnik

\* Not all trade fair dates were fixed at the time of going to press, and we cannot guarantee that this trade fair plan is complete.



# NEW – HERZ radio control for room temperature regulation

– Retrofit of existing heating equipment made easy!

Many floor-heating systems which were installed in the 1980s and 1990s are difficult to manage and are not equipped with an adequate control system.

With the new radio control, HERZ is offering the solution for a simple retrofit for existing heating equipment without expensive and tedious conversion work!

### One-channel radio control



The one-channel radio control is suitable for single radiators or for areas fitted with a zone valve. The equipment is retrofitted with an electro-thermal drive (with power

supply) for each area. The room temperature control (item no. 3F79423) is also a radio-transmitter and is installed in the most suitable place in the room without any electrical cabling.

Installation of the receiver (3F79424) is recommended close to the heat source. A power source is also required here.

### Multi-channel radio-control

The multi-channel radio control is suitable for the renovation or retrofit of existing floor heating systems without up-to-

date room temperature control. Several heating areas can be controlled using this. The HERZ room temperature controller regulates the temperature in individual rooms and a zone controller, the HERZ radio controller, is also installed.

This remote control regulates all room temperature controllers. If, for example, the remote control is set to lower the temperature, then all heating areas in the individual rooms go into the desired heat saving mode, irrespective of the setting in the individual rooms.

The receiver of the multi-channel radio control is installed next to the distributor box.



### Multi-channel radio control

| Product                          | Item no. |
|----------------------------------|----------|
| 230V room temperature controller | 3F79423  |
| 24V room temperature controller  | 3F79424  |
| 230V, 4-channel receiver         | 3F79504  |
| 230V, 6-channel receiver         | 3F79506  |
| 24V, 4-channel receiver          | 3F79604  |
| 24V, 6-channel receiver          | 3F79606  |
| 24V, 8-channel receiver          | 3F79608  |
| 4-setting remote controller      | 3F79704  |
| 5-setting remote controller      | 3F79705  |

The HERZ radio controller (zone control) for the multi-channel radio control is available with 4 to 5-setting control for

- Automatic operation
- Normal temperature
- Set back
- Frost protection
- Cooling operation (only in connection with heating/cooling accessories)



### "HERZ goes system":

For the installation of heating and cooling equipment in



wall, floors and ceilings, HERZ offers a comprehensive programme of system components for insulation, installing and fixing. The HERZ Pipefix system has been extended to include press fittings in sizes 10 x 1.3mm (see picture). Further details are available at



our stands and in the next issue of HERZ News.

## Herz Feuerungstechnik

The new HERZ pelletstar BioControl (power categories 10kW, 20kW and 30kW) is one of the trade fair highlights for HERZ Feuerungstechnik. The HERZ pellet boiler is attractive because of its high level of efficiency and modern design. The BioControl 3000 control gives fully automated regulation of the equipment and makes it easy enough for a child to operate!

From HERZ Feuerungstechnik – Bruno Ganster, head of sales and Dr. Morteza Fesharaki, head of research and development, proudly present their latest product – the HERZ pelletstar BioControl 3000.



# Practical systems for the regulation of room temperature and floor temperature control

Cosy heat exactly when and where it is needed. They function to perfection; the new HERZ products and systems for controlling room temperature guarantee heating and control with practical and cost-efficient systems for bathrooms and adjoining rooms.

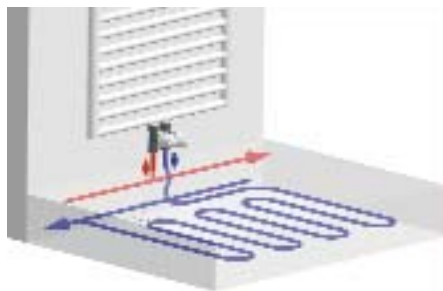
**H**ERZ offers three different variants which are determined according to their ease of installation into modern bathroom and designer radiators as well as their function – the regulation of room temperature. Using either thermostatic valves and return temperature limiters alone, or in combination with a HERZ dual connection distributor, or with the new HERZ Floorfix that functions entirely without radiators – all three variants ensure comfortable control and are simple and out of sight once installed.

## HERZ return temperature limiter

The simplest system consists of a HERZ Mini GS (9201) return temperature limiter and a HERZ thermostatic valve. The HERZ return temperature limiter allows the integration of floor heating areas into radiator heating systems with minimal installation costs. The hot supply to the radiator – irrespective of the room temperature – is controlled in the dual-pipe heating system via the radiator connection set thermostatic control valve. The mean temperature of the floor heating area (radiator return temperature) is limited via a thermostatic valve with a return temperature limiter. This means that circulation only occurs if the optimum operating temperature is achieved for the floor heating. A comfortable temperature can thereby be maintained, for example, in the bathroom.

## HERZ return temperature limiter in combination with HERZ dual connection distributors

In contrast to the first system, the floor circulation can be controlled independently of the radiator using the combination of these two HERZ products. This means that the radiator can be cold but the floor remains temperature controlled, as the control areas of the radiator and the floor temperature control are separate. The radiator connection set is installed out of sight in a box in the wall and all connection parts can be quickly and safely screwed in wi-

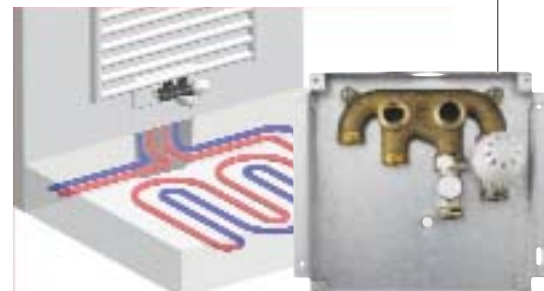


This system uses radiator return for floor heating temperature control. Overheating is avoided by installing a HERZ return temperature limiter.

thout additional sealing materials. This system is the optimum one to use during renovation or retrofitting. The radiator as well as the floor heating can of course be shut off from one another. The radiator can thereby be turned down as required after closing the flow and return without having to empty the system. The floor circulation remains in operation throughout. **Function:** The hot supply to the radiator is controlled by the radiator flow valve independently of the room temperature. The amount of water through the radiator advance flow valve is set precisely according to the amount of water required, which is determined by the heat requirement in the room. The amount of water in the radiator and floor heating is apportioned by the



HERZ Floorfix is installed under the floor and controls the temperature of your rooms without radiators.



Floor heating temperature control is controlled independently of the radiator by installing a HERZ reverse flow temperature delimiter in combination with the HERZ dual-connection distributor.

3144 connection set. The amount of water for the floor is limited using pre-adjustment on a separate HERZ thermostatic valve.

## HERZ Floorfix – the innovative floor heating control set for buried installation.

HERZ Floorfix (1 8100 10) fixing enables room heating without radiators as well as the comfortable temperature regulation of floors. The spatial separation of the remote adjuster and connection box is a significant product advantage. Thanks to the buried installation in a robust box made of hot-dip galvanised sheet steel, it is possible for the first time to gain service access to the fittings from a neighbouring room. To give an example, your new bathroom can retain its existing beauty without unwanted apertures in the wall to ruin the overall impression.

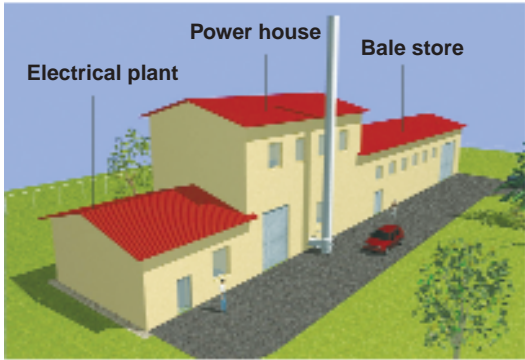
**Function:** The temperature of the heating water flow for the floor heating is set using the adjuster screw and the temperature scale. This means that circulation is only achieved if the optimum operating temperature is reached for the floor heating. The room temperature control is regulated using a HERZ thermostat with remote adjuster for surface or buried installation, or the new HERZ DE LUXE thermostats with remote adjustment (see page 3 also). The pipe connection is achieved out using HERZ G 3/4 compression sets.

# EU project NESSIE\*: Bale combustion plant for straw-like biomass (e.g. corn) for power and heat generation

**H**ERZ Feuerungstechnik based in Seibersdorf (Styria) is one of the pioneers in the construction of fully automated biomass heating equipment. With its major project in Dürnkrot, northern Austria, HERZ Feuerungstechnik has taken the next logical step in product development. The “bale combustion equipment for straw-like biomass” project was realised in co-operation with the Vienna University of Technology (Institute of Process Engineering) and the company Greenpower (a subsidiary of Vienna Stadtwerke, the company Porr and Federspiel Ökotechnologie Consulting) located in Dürnkrot. The appeal of the project also won over experts in Brussels and the development of the plant was backed by the EU within the NESSIE programme. An area of 120 hectares per annum of corn

## Biomass power-heat-coupling plant

### Plant module characteristics

|  |  |
|--|--|
| <p>1 plant module: <b>1970kW</b> (boiler power rating)<br/><b>280kW</b> (upgrade phase 1)</p>  <p><b>Design and objectives of the project at the Dürnkrot site</b></p> | <p><b>FUEL INPUT</b></p> <p>6000 bales per annum<br/>Corn, whole plant sources<br/>120 hectares p.a. under cultivation</p> <p><b>GREEN ELECTRICITY</b> /</p> <p>150 residential units</p> <p><b>LOCAL HEAT</b></p> <p>150 single-family houses</p> <p>4 apartment block plants</p> <p>1 school and<br/>1 market garden</p> |
|--|--|

is required to supply the plant which generates heat for communal institutions, businesses and apartments in Dürnkrot.

#### There are several objectives underlying the project:

- The development of an environmentally friendly biomass heating plant.
- Low plant development and construction costs as well as a short repayment period.
- Minimisation of the costs for fuel transportation and storage.
- Recycling of combustion residues (ashes).

#### Technical innovation – air-cooled combustion chamber, developed by HERZ

The centrepiece of the plant, in contrast to traditional firing ovens, is an air-cooled combustion area,

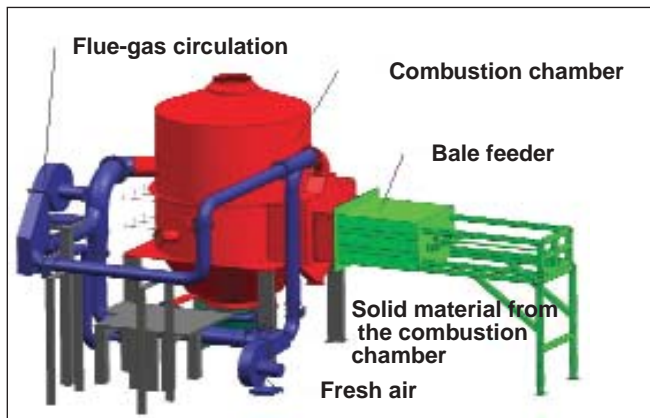
which was developed by HERZ Feuerungstechnik. The main advantage and technical innovation lie in the fast heating up speed of the plant and in the significantly faster control capability. The plant reaches operating temperature within 60 minutes whereas traditional plants require up to 24 hours.

#### Heat from combustion gases

The bales are brought in automatically using a so-called bale slider. The combustion area is constructed so that the front side of the bales gasify and combust as evenly as possible. The combustion gases are either used in an appropriate steam procedure to generate power and heat supply or for heat supply only. Non-burned parts are then fully burned in a lower area of the combustion chamber. The resulting ashes are transported into a suitably sized room on conveyors and taken out to the fields as fertiliser.

The Vienna University of Technology’s Institute of Process Engineering was commissioned to devise the layout of the combustion plant, with a very detailed power and heat transmission model. The most up-to-date CFD (computer fluid dynamics) were used for this.

\*NESSIE = New Small Innovative Energy Biomass Combustor



Schematic presentation of the bale combustion plant

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