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<b>aquatherm - lilac</b> pipe system for recycled water	<b>Order No.</b> OE18201
<b>aquatherm</b> <sup>®</sup> surface heating systems	<b>Order No.</b> OE90001
<b>climasystem</b> surface heating and cooling system for ceiling & wall	<b>Order No.</b> OE97060
<b>aquatherm</b> <sup>®</sup> <b>SHT</b> potable water and radiator connection system	<b>Order No.</b> OE70001
<b>aquatherm</b> article list	<b>Order No.</b> OE54152
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For detailed information, please get in touch with our info service calling **00492722 950-0**  
or visit the download area of our website **www.aquatherm.de**

**Stamp of dealer**

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# aquatherm climasystem

**Ecological and economical -  
the modern way to heat**

Turn   
the page and  
learn more



Climate of well-being, the climasystem from **aquatherm**



# aquatherm climasystem

## Ecological and economical – the modern way to heat



High heating costs, raisings of dust, allergies, unfavorable distribution of temperature, high flow temperatures, required space for radiators – all this can be resolved by the aquatherm climasystem!

The system is in a compact grid construction for heating, cooling as well as heating and cooling of rooms across ceiling, wall and floor areas.

At a large extent, an individual's satisfaction and productivity depends on the basic environmental conditions of the surroundings. Working efficiency and comfort is considerably determined by the personal sense of well-being, which as a matter of priority is influenced by the ambient temperature.

The ingenious aquatherm climasystem delivers pleasant room conditions without any draught. Depending on the water temperature chosen, heating or cooling is simply controlled with this technology. Automatic designed change-over of heated or chilled water completes the system, from the single room control to the perfect control engineering.

### Advantages:

- Energy saving in operation
- Noiseless
- No additional dust exposure
- No draught, thus highest climatic comfort
- Constant distribution of temperature
- Suitable for later installation
- Fast assembly
- To a large extent architectural freedom of designing
- Low construction height

## **aquatherm climasystem** **Ceiling heating**

The system offers pipe grids in different lengths and widths so that the installation in suspended ceilings or concealed can be adjusted to the individual locations. The combination of various sizes of pipe grids is of course possible and ensures best heating and cooling results in old and new buildings.

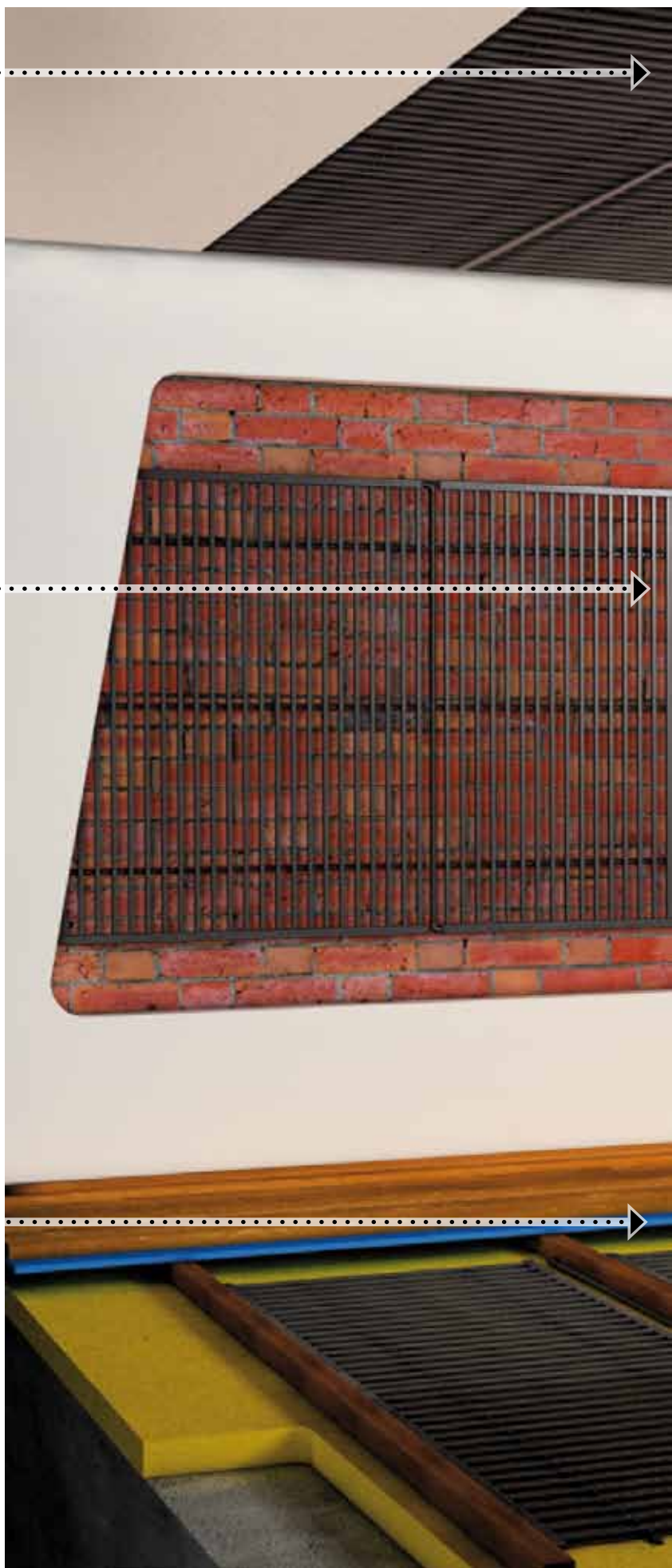
## **aquatherm climasystem** **Wall heating**

Basic idea of the wall heating is the occupant's well-being: A thermally balanced room is to be created.

Therefore, the principle of technology is not air heating and circulation, but the output of heat radiation from tempered walls directly to the room and the person respectively. A comfortable warmth, since the temperature of heating surfaces can be low chosen because of the relatively large heating surfaces. This is an advantage compared to small hot surfaces, such as radiators.

## **aquatherm climasystem** **Underfloor heating**

aquatherm climasystem, a plus for comfort. Used as underfloor heating system, the climasystem allows walking barefoot in the house even in winter. Another advantage is the architectural freedom of designing the rooms. In addition to this, there are the hygienic aspects of an underfloor heating system. There are no raisings of dust. By the constant surface heat, the growth of house dust mites and formation of mould will be prevented.

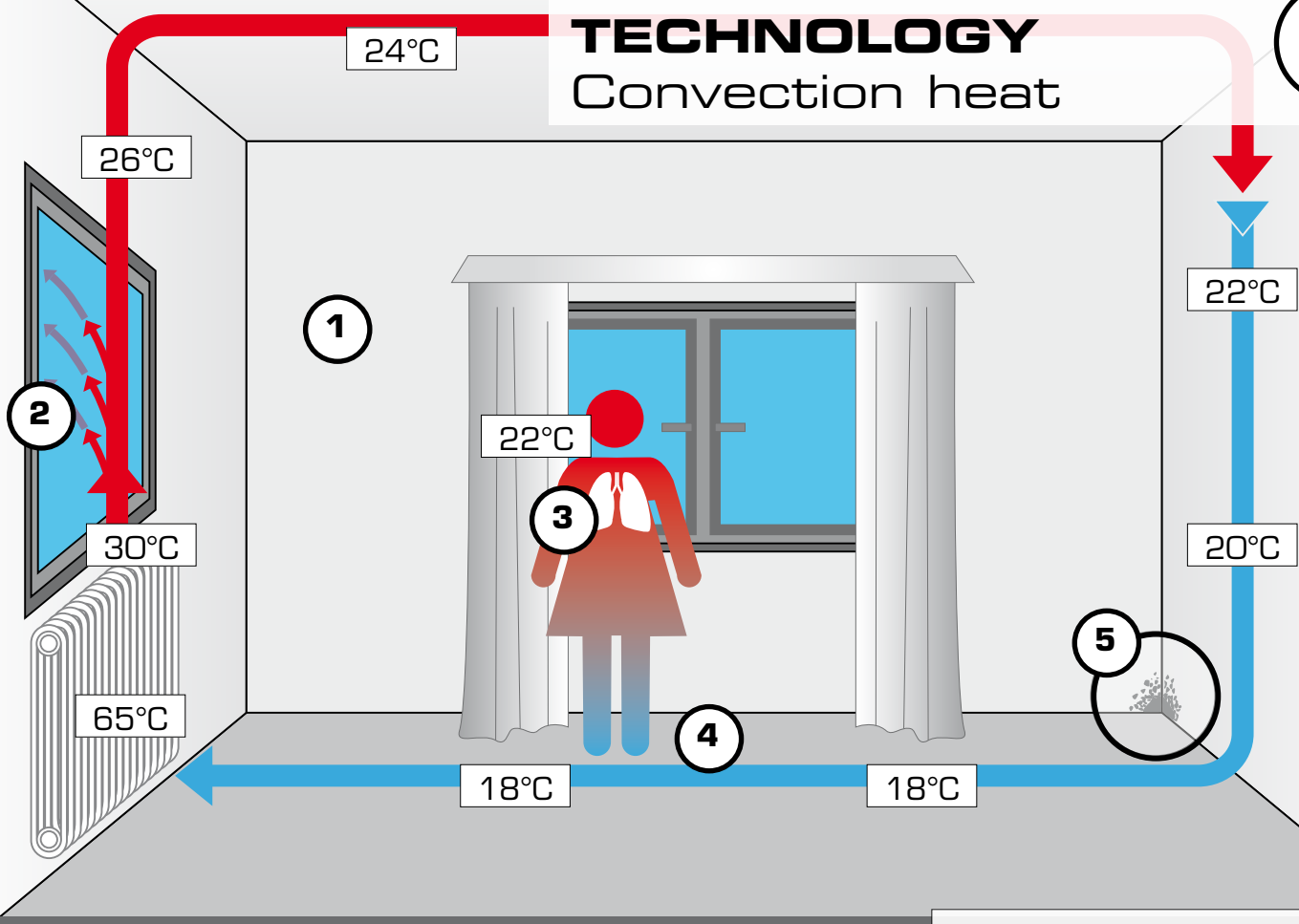


**READY FOR USE**  
in all four walls



# OLD HEATING TECHNOLOGY

## Convection heat



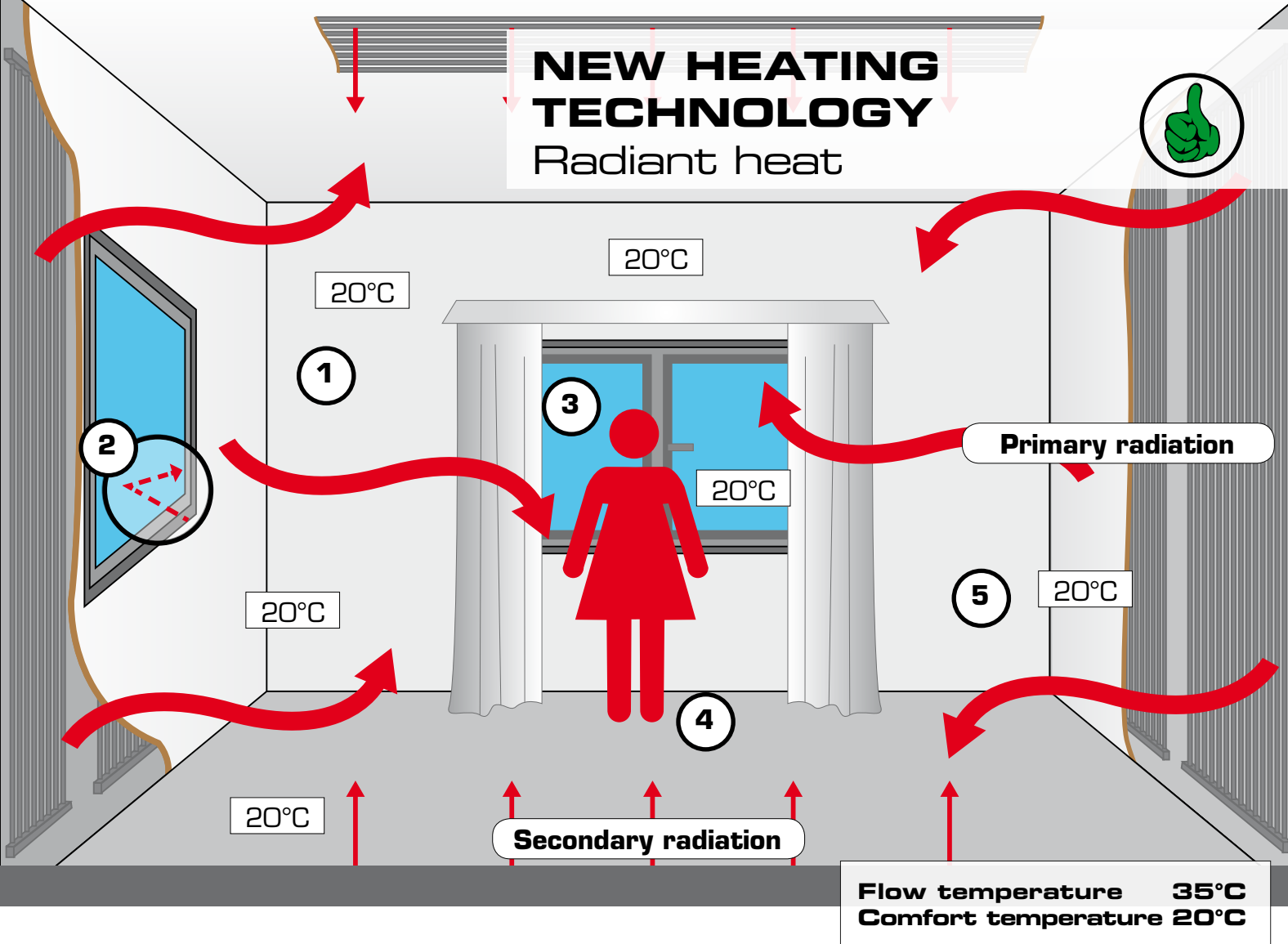
Flow temperature	65°C
Room temperature	22°C

### The convection heating with the old radiator

- 1 Energy loss 1:**  
A high air temperature of at least 22°C is required to heat a room with air. Air is a bad heat carrier; therefore the energy costs are high.
- 2 Energy loss 2:**  
Air heats the window. But the highest energy loss results from weak point of the insulation in the house - the window. Very high-quality windows are necessary. When airing the most energy-rich air escapes through the window.
- 3 Health at risk:**  
The air movement (warm air rises) kills the sense of well-being, too, since asthmatic and allergic persons have a primary problem with raising dust. This dust mixes with our breathing air and can lead to enormous burdens of the organism. An increase of the room temperature requires a reduction of the air humidity. Mucous membranes will dry out. The natural filtration system (nose) will be affected.
- 4 Discomfort:**  
Feet remain cold, as warm air rises up and is mainly in the upper area of a room. By that a feeling of discomfort is developed. The heating is adjusted to a higher level. The above effects will be increased.
- 5 Formation of mould:**  
Cold air strokes the wall, water condenses and creates the culture medium for the formation of mould.

# NEW HEATING TECHNOLOGY

## Radiant heat



### The radiant heating with the new climasystem

- 1 Energy saving 1:**  
Comparable to the sun, the radiant heating first of all heats the solid and liquid materials in a room. Walls, ceilings and floors are constantly heated and the room temperature only in the second step. However, a high air temperature is not required for radiant heatings. An air temperature of 20°C is completely sufficient and provides a comfortable sense of well-being.
- 2 Energy saving 2:**  
There are no losses through the window. Heat radiation is reflected by glass and given back to the room.
- 3 Energy saving 3:**  
The room temperature is low. Thus you will not have any big energy losses, even when airing. The low air temperature creates a natural and pleasant climate.
- 4 Comfort:**  
In case of radiant heat, there are no differences in temperature of the room air, like with convection heatings. The head remains cool and the feet warm.
- 5 Dry walls:**  
Since the walls are directly heated, there is no condensation and consequently no formation of mould.

#### Rule of thumb:

**Reduction of room temperature by 1°C = 6 % energy saving**  
**Surface to be occupied = 60-100 % of the building area,**  
**depending on the building structure**



## aquatherm climasystem **Dry construction**

Lightweight partition walls  
in aluminium frames



### aquatherm climasystem **Heating element for dry construction**

**Field of application:** Lightweight partition walls in aluminium frames

**Heating capacity:** 60W/m<sup>2</sup> at room temperature of 20°C  
Flow temperature 35°C  
Return temperature 31°C  
Delta T 13 K

**Type of wall:** Dry-lined walls

**Covering:** Fermacell board 12.5mm (can be painted, tiled or papered at once)

**Field of application:** Renovation and new construction

**Possible dimensions for inner frame distance of 625mm:**

Width: 625mm length: 2,000mm # 5662200

Width: 625mm length: 1,000mm # 5662100

**Pipe connection:** climasystem plug-in system / to be welded-fused



## aquatherm climasystem **Dry construction** for roof slope with dry construction

### aquatherm climasystem **Heating element for dry construction**

**Field of application:** Roof slope with dry construction

**Heating capacity:** 60 W/m<sup>2</sup> at room temperature of 20°C  
Flow temperature 35°C  
Return temperature 31°C  
Delta T 13K

**Type of wall:** Roof slopes

**Type of ceiling:** Drywall ceiling

**Covering:** Drywall 12.5mm, to be provided by the client

**Field of application:** Renovation

**Possible dimensions for inner principal rafter of 360mm:**

Width: 360mm length: 2,000/2,500 and 3,000mm

**Pipe connection:** climasystem plug-in system / to be welded-fused with 90° elbows

# aquatherm climasystem for plastered walls and ceilings

## **aquatherm climasystem heating element for plaster work**

Field of application: heating element for the installation for plastered walls.

**Heating capacity:** 76 W/m<sup>2</sup> at room temperature of 20°C  
Flow temperature 35°C  
Return temperature 31°C  
Delta T 13 K

**Type of wall:** Wall with plaster work  
**Type of plaster work:** gypsum clay or lime cement plaster 10mm covering  
**Field of application:** renovation and new construction  
**Example dimension:** width: 600mm length: 2,000mm  
**Pipe connection:** to be welded-fused

# aquatherm climasystem for suspended paneled ceilings



## **aquatherm climasystem Heating element for dry construction**

Field of application: Heating element for thermal activation of paneled ceilings

Heating capacity in drywall panels:  $78 \text{ W/m}^2$  at  $dT = 13 \text{ K}$  ( $T_{\text{medium}} - T_{\text{room}}$ ) (drywall-climafit)

Cooling capacity in drywall panels:  $67 \text{ W/m}^2$  at  $dT = 9 \text{ K}$  ( $T_{\text{medium}} - T_{\text{room}}$ ) (drywall-climafit)

Heating capacity in metal panels:  $79 \text{ W/m}^2$  at  $dT = 13 \text{ K}$  ( $T_{\text{medium}} - T_{\text{room}}$ )

Cooling capacity in metal panels :  $78 \text{ W/m}^2$  at  $dT = 10 \text{ K}$  ( $T_{\text{medium}} - T_{\text{room}}$ )

**Type of ceiling:**

for suspended paneled ceilings

**Covering:**

panels made of metal or drywall to be provided by the client and as requested by the architect/building owner

**Field of application:**

New construction and renovation

**Dimensions:**

Width: individually according to specifications



**aquatherm climasystem**

Individual solutions for special requests



①

②



### **aquatherm climasystem** **Use in shower**

- › Comfortable warmth in the shower area
- › No cold emitting tiles
- › Simple assembly
- › Independently adjustable to size of shower and shower fitting
- › Applicable in combination with existing radiator system via single room control
- › Suitable for connection to all standard underfloor heating systems
- › Residual heat demand can be covered by it
- › Installation possible in new and old buildings

#### **Example of installation**

Shower 1 m x 1 m with concealed fitting

- ① Article number: 5060160 (width 0.60 m / length 1.60 m)  
Quantity: 1  
Use in the wall without fitting
- ② Article number: 5036160 (width 0.36 m / length 1.60 m)  
Quantity: 2  
Concealed fitting is placed between pipe grids, plus connection pipes and if necessary single room control

### **aquatherm climasystem** **Use in mirror**

#### Non-fogging mirror

- › Thanks to the use of climasystem grids behind the mirror, the warmed mirror cannot be fogged up
- › Simple assembly
- › Independently adjustable to any size of mirror
- › Applicable in combination with existing radiator system through single room control
- › Suitable for connection to all standard underfloor heating systems
- › Perfect addition to the wall heating in showers



### **aquatherm climasystem** **compatible with any heating system**

By the possibilities of combination with various types of heating, such as

- ① Oil heating
- ② Pellet heating
- ③ Gas heating
- ④ Heat pump

aquatherm climasystem offers the best solution for the renovation of old buildings or the designing of new buildings – whatever heating system you decide for, the highest compatibility will be given and compromises in designing your new heating system will be avoided.



**aquatherm climasystem**  
**becomes the design air-conditioning system h2c**

Perfect room climate looks as good as this.

Together with aquatherm, HJE Systembau Eickhoff GmbH & Co. KG developed the individually designable air-conditioning system h2c Aluframe. climasystem. H2C "hot to cool" stands for an intelligent surface heating and cooling system. The h2c ALUFRAME.

climasystem is an air-conditioning and heating system rolled into one. Developed on the basis of the aquatherm climasystem, the design air-conditioning system is integrated in a textile stretcher and can subsequently be provided on walls or under ceilings. Besides, h2c is also available as detached stand element, for example as partition. The system is connected to the normal heating supply. On the occasion of the EuroShop fair, the h2 C ALUFRAME. CLIMASYSTEM has already been honored with the innovation award for architecture and presentation in the category of "products of high architectural quality".

For further information on this system, please visit [www.hje-gruppe.de](http://www.hje-gruppe.de).

