

Heating with logs & wood pellets



pelletfire

20-40



Competence is our success

HERZ FACTS:

- 22 companies
- Group headquarters in Austria
- Research & development in Austria
- Austrian owned
- 2.400 employees in more than 85 countries
- 24 production sites



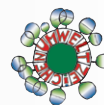
HERZ Armaturen GmbH - The company

Founded in 1896, Herz has been continuously active in the market for more than 118 years. With 9 sites within Austria, another 15 in Europe and more than 2,400 employees at home and abroad, HERZ is the only Austrian manufacturer that produces equipment for the entire heating and installation industry and is one of the most important internationally.



HERZ Energietechnik GmbH

HERZ Energietechnik employs more than 230 staff in production and sales. At the company sites in Pinkafeld, Burgenland and Sebersdorf, Styria, there is state-of-the-art production as well as a research institute for new, innovative products. As a result, proven cooperations with research and educational institutions can be intensified. Over the years, HERZ has established itself as a specialist in renewable energy systems. HERZ places a great importance on modern, cost-effective and environmentally friendly heating systems with the highest level of convenience and user-friendliness.



HERZ for the environment

All HERZ biomass systems fall below the strictest emission regulations. Numerous environmental endorsements bear witness to this.

HERZ quality

HERZ designers are in constant contact with recognised research institutes in order to improve the very high standards even further.



Flexible heating ...



Proven technology new combined

The multifunctional pelletfire is a perfectly paired combination of a log and wood pellet boiler.



The already proven technology and the know-how from the HERZ pelletfire (from the year 1996) was used for further development regarding efficiency and comfort.

Heating with either logs or pellets

Due to the separate combustion chambers, the operation can be switched easily between logs and pellets.

Continued operation

If the buffer or heating circuits require heat after burning of all logs, the operation is automatically continued with pellets.

Selection of pellet discharge systems

HERZ offers a variety of pellet discharge systems including flexible screw discharge, suction system or manual hand filling to suit different plant room layouts.



Add pellets later

Futureproof your installation with the option to retrofit. If the use of wood pellets is likely in the future, the log boiler with pellet flange is the solution for you. With this flanged solution it is possible to retrofit the log boiler with a pellet burner to meet your requirements.



wood pellets according to

- EN 14961-2: property class A1
- Swisspellet, DINplus, ENplus or ÖNORM M7135

Benefits and details ...



**The HERZ
T-CONTROL with
touch display**

Central control unit as standard for:

- Buffer management
- Return flow temperature bypass (pump and mixer valve)
- Domestic hot water preparation
- Controlled heating circuit (pump and mixer valve)
- Frost protection
- Simple screen design and convenient menu guide.
- Extension modules up to 55 modules possible (heating circuits, solar-use, second buffer etc.)



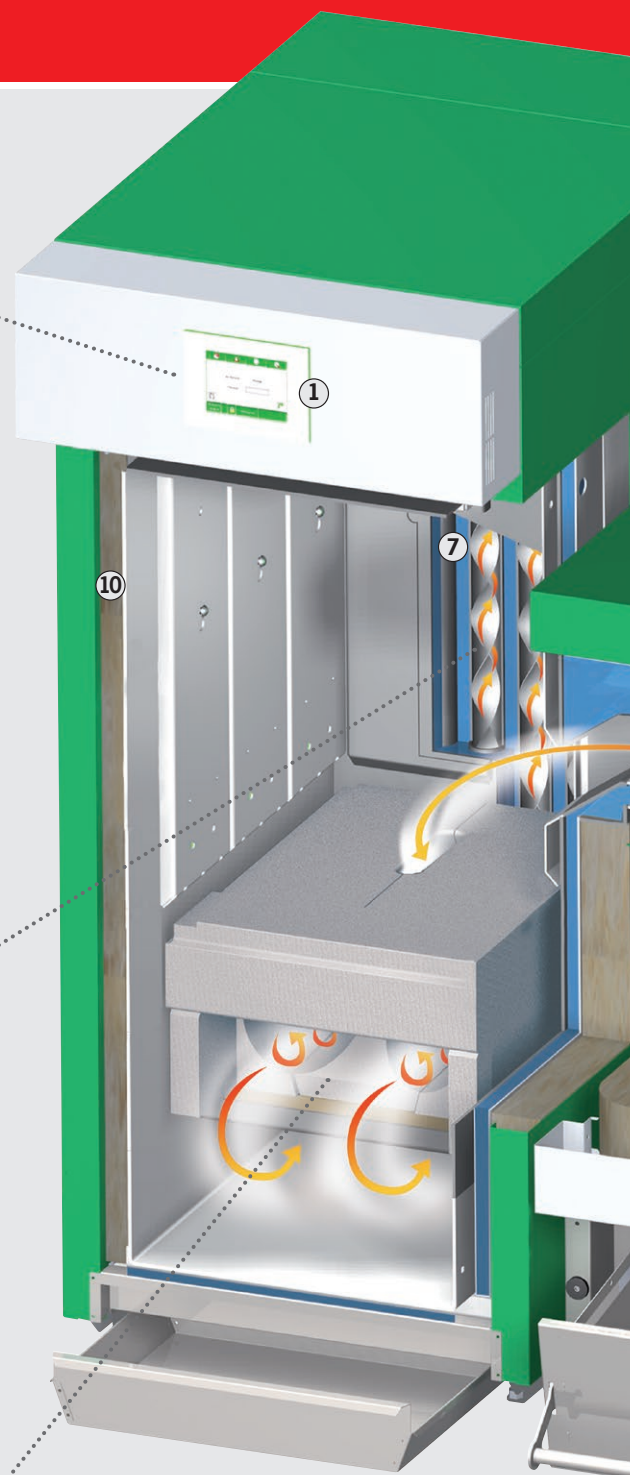
**Automatic
cleaning of the
heat exchanger**

- The heat exchanger surfaces are automatically cleaned via the integrated turbulators, even during heating operation, eliminating manual cleaning.
- A consistently high level of efficiency thanks to cleaned heat exchanger surfaces enables low fuel consumption.
- The ash falls into the large ash bin, accessible from the front.



**Highly efficient
due to the double
vortex combustion
chamber**

- The revolutionary double vortex combustion chamber ensures optimum blending of the combustion gases with oxygen.
- The flame is distributed across 2 chambers and therefore ensures highly efficient combustion.
- The combustion chamber consists of heat-resistant fireproof concrete (SiC) no sheet metal parts ➡ no wear and tear ➡ which means DURABILITY

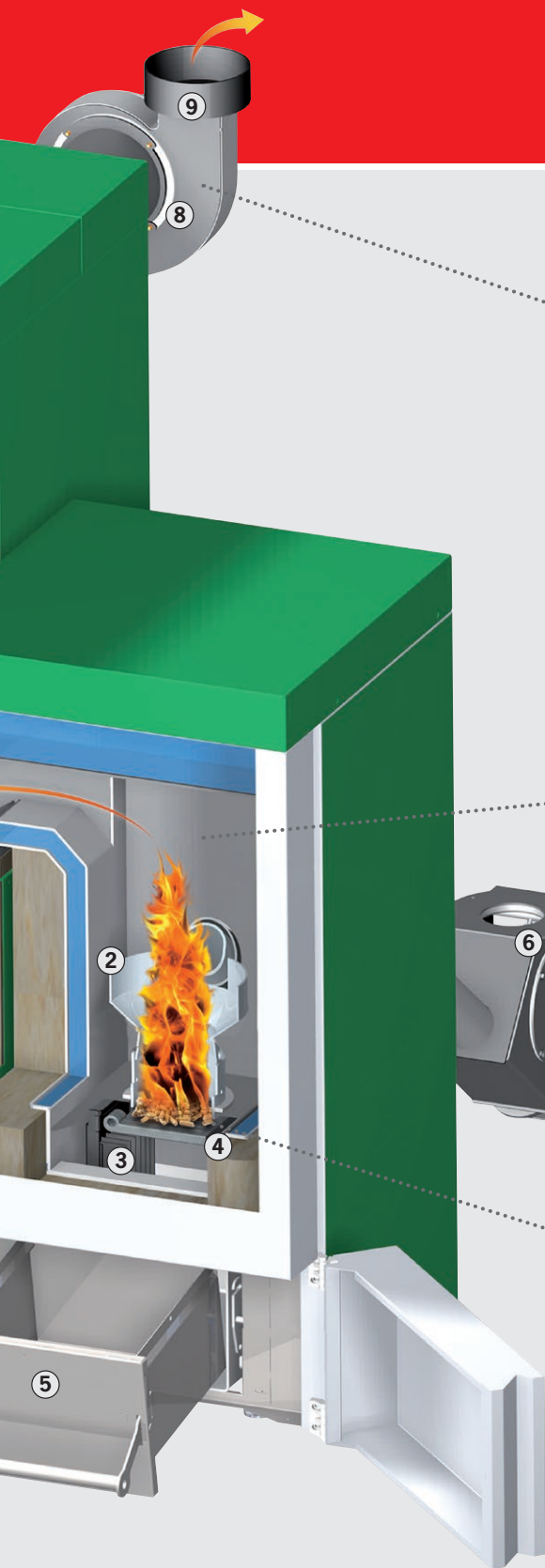


1 T-CONTROL
central control unit

**2 High temperature resistant
stainless steel burning
chamber**

**3 Automatic cleaning of the
combustion grate (pellet
burner)**

... of HERZ pelletfire



Energy saving combustion via the lambda probe



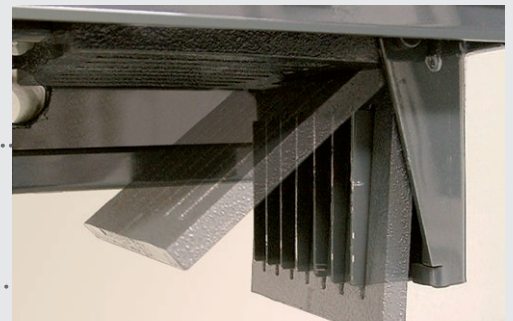
- A built in lambda probe, which monitors continuously the flue gas content values, detects fuel quality changes and ensures optimum combustion and low emission values.
- The lambda probe controls the air supply ensuring complete combustion, even in part load operation.
- The results are low fuel consumption and the lowest emission values even with different fuel qualities.

High temperature resistant stainless steel burning chamber



- Made of high heat-resistant steel - for longest lifetime

Automatic cleaning of the combustion grate



- Complete cleaning of pellets-combustion grate which automatically tips ash to extraction point. Minimises the manual cleaning requirement.
- A clean combustion grate guarantees an optimum air supply.
- The ash from the burning chamber is dropped into the large ash bin below.

4. Automatic ignition
using hot air fans

5. Ash-box for ash of the
easy access from the front,
easy to handle

6. Certified burn back
protection device (BBP)

7. Pipe heat exchanger
with turbulators and
automatic cleaning

8. Lambda probe control
Automatic flue and
combustion monitoring

9. Draught fan speed
controlled and monitored for the
highest operating safety

10. Efficient heat insulation
for the lowest radiated heat loss

Easy, modern and comfortable ...



With the user-friendly VGA color touch-screen controller, the burning-process, as well as heating circuits, a hot water tank, buffer tank and a solar system can be controlled.

T-CONTROL

A central control unit for:

- Buffer management
- Return flow temperature bypass (pump and mixer valve)
- Domestic hot water preparation
- Controlled heating circuits (pump and mixer valve)
- Solar circuit control
- Frost protection

The convenient menu and simple screen layout with schematic 3D-representation ensures maximum user-friendliness.

The “modular operation” of the T-CONTROL offers extension possibilities up to 55 modules. This allows the central control unit to process the combustion (with lambda sensor), buffer management, return temperature rise, heating circuits, hot water preparation, solar circuit and more optimal together. Additionally, the control system can be easily expanded or modified with the external modules.

... with the central control unit T-CONTROL



T-CONTROL

Remote access to the controller using VNC Viewer

As an additional option, the T-CONTROL offers the possibility for remote visualization and remote maintenance via smartphone, PC or tablet PC. The handling is the same as in the touch controller directly in the boiler. The processes and parameters can be read and modified any time from anywhere.

Further advantages of the T-CONTROL:

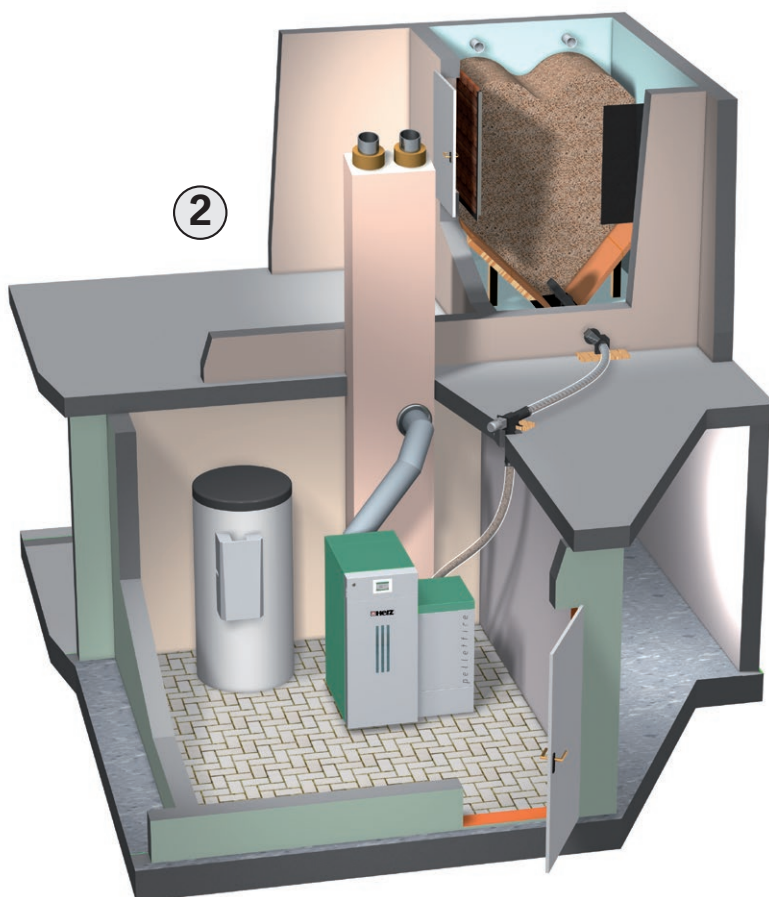
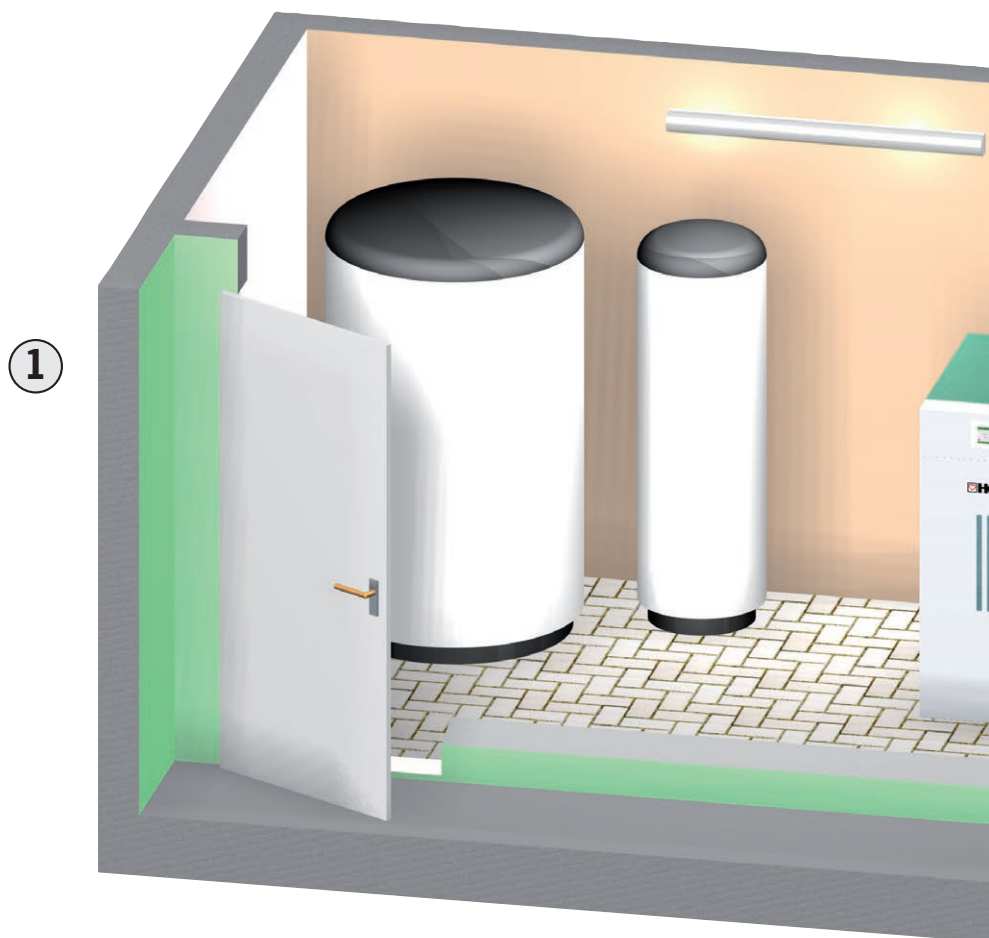
- Power-saving standby mode
- Status and error messages via e-mail
- Data transfer and software updates via USB stick
- Possibility of Modbus-Communication
- Easy and clear presentation of the functions from various components (hot water preparation pump, circulation pump, mixing valve, switchin valve, actuator-motors usw.)

Discharge systems ...

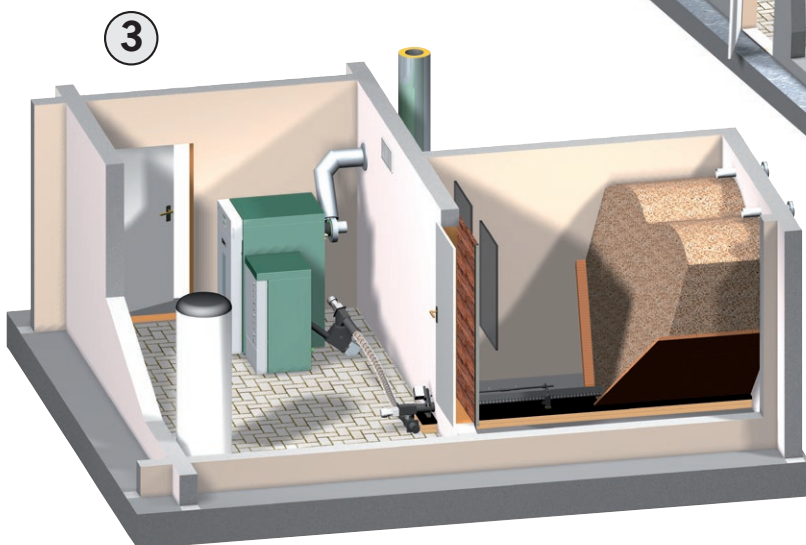
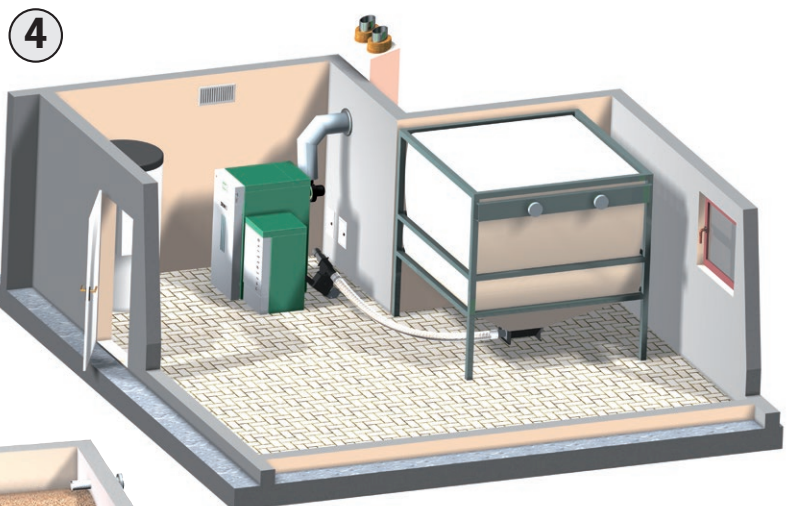
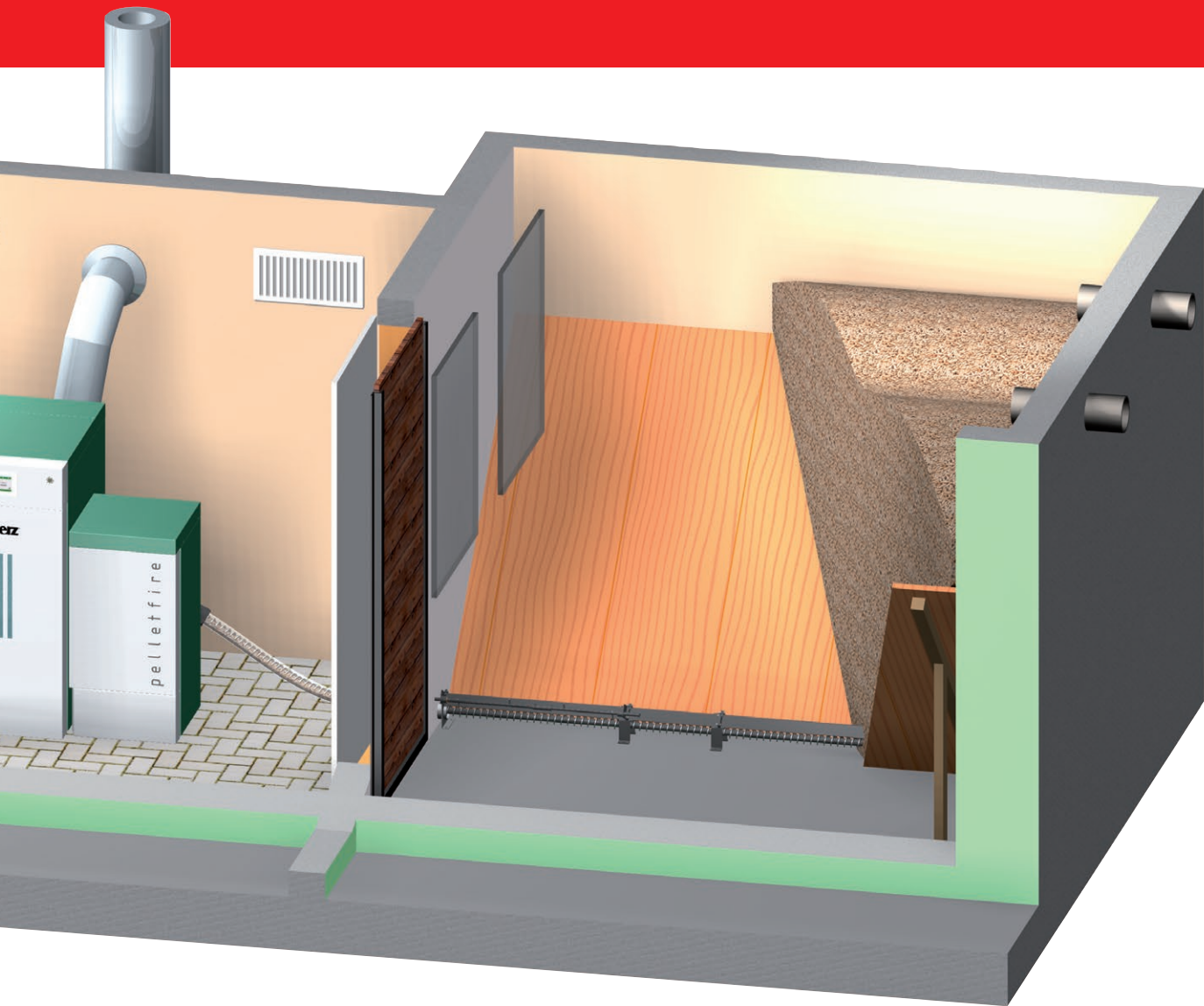
HERZ offers for different room and space situations a variety of solutions to store the pellets and to discharge the pellets via various feeding systems to the boiler.

Flexible screw discharge from HERZ

- 1 The room discharge with a flexible screw is an easy and energy saving solution to empty the storage room in an efficient way.
- 2 The storage room is located one floor higher than the boiler room or in the attic? This is no problem with the flexible screw discharge with chute pipe system!
- 3 Room discharge with flexible screw and transfer hopper (with 2 flexible screws): even more flexible and suitable for longer distances
- 4 Room discharge with flexible screw from a bag silo. The bag silo can normally be placed into the boiler room (please pay attention to your local safety laws!). This solution is used if no separate storage room is available.



... with flexible screw

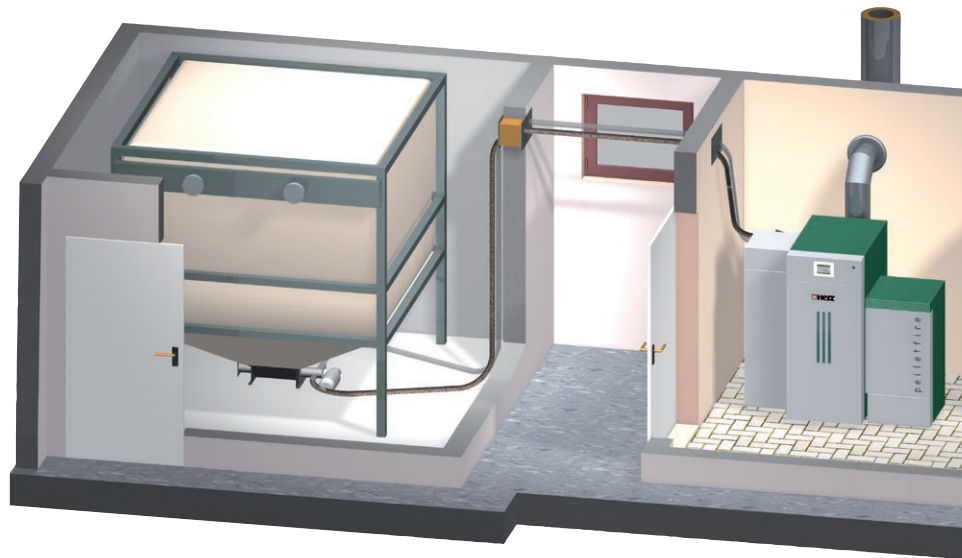


Discharge systems ...

HERZ Suction systems for longer distances to the boiler

- 1 Room discharge with a modular screw (in the storage room) and in combination with suction turbine.
- 2 4-point suction system
The positioning of the 4 suction probes can be individually selected. The system can be installed easily and is an adaptable, universal solution to each storage room situation.
- 3 Suction discharge from a bag silo. The bag silo can be assembled easy & fast.
- 4 Suction discharge from a ground silo (outside of the house).

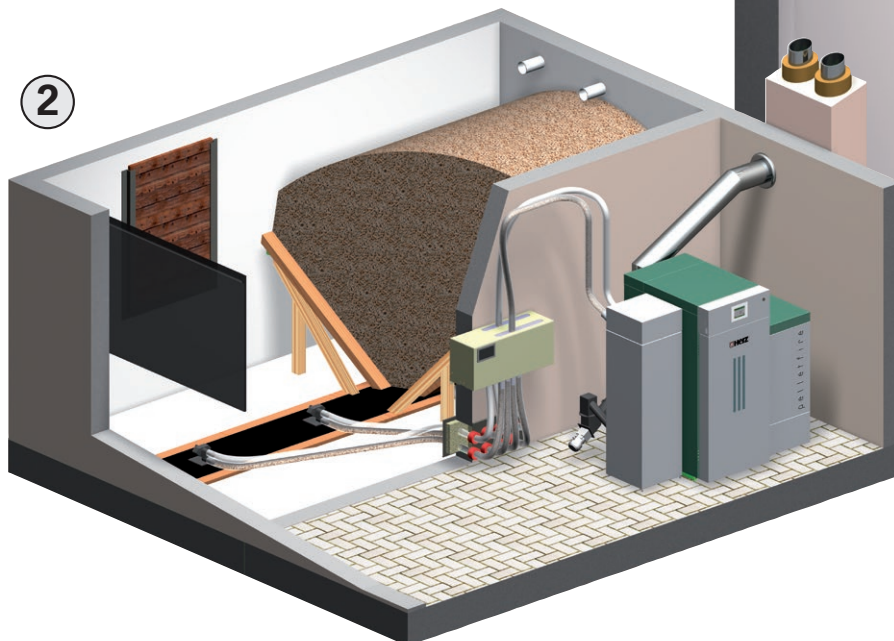
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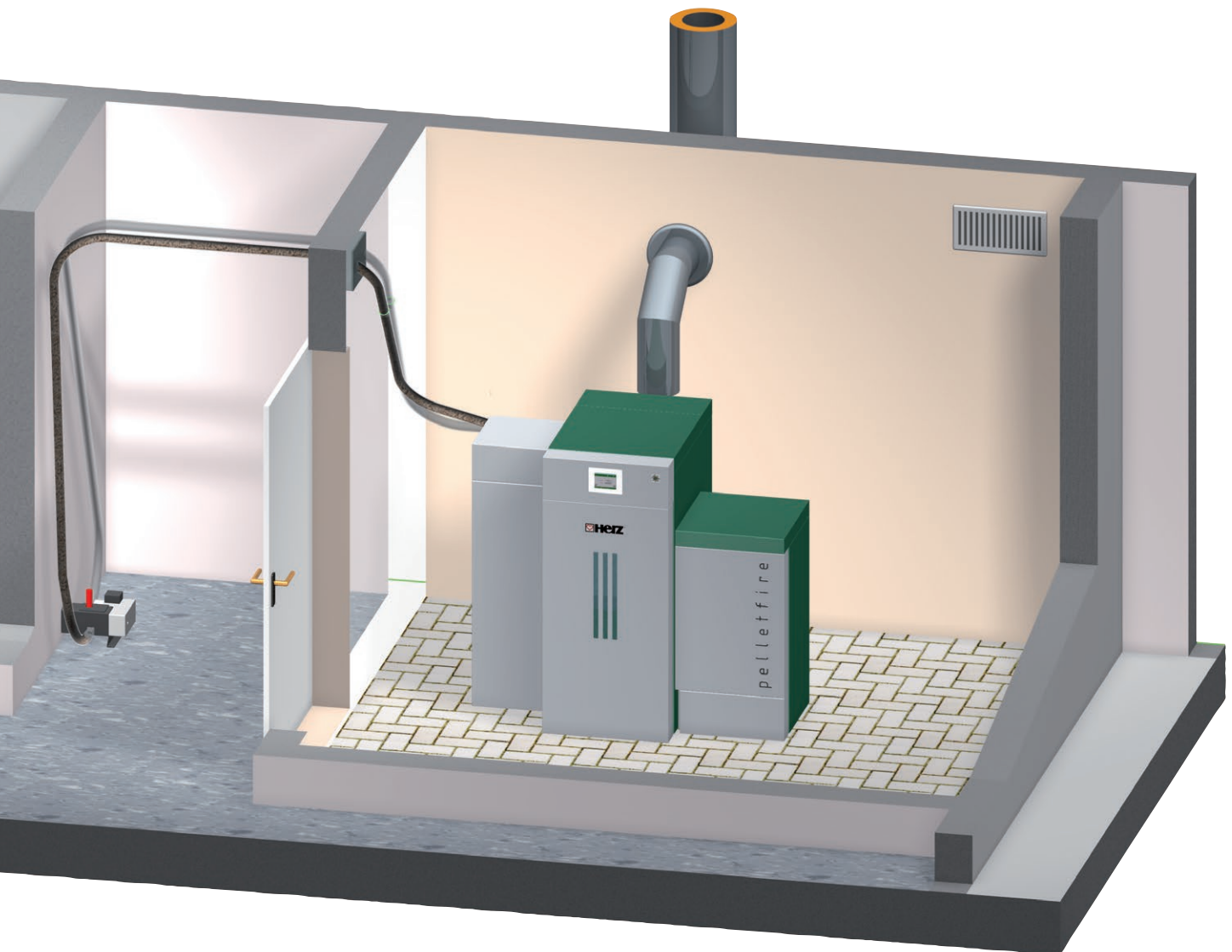
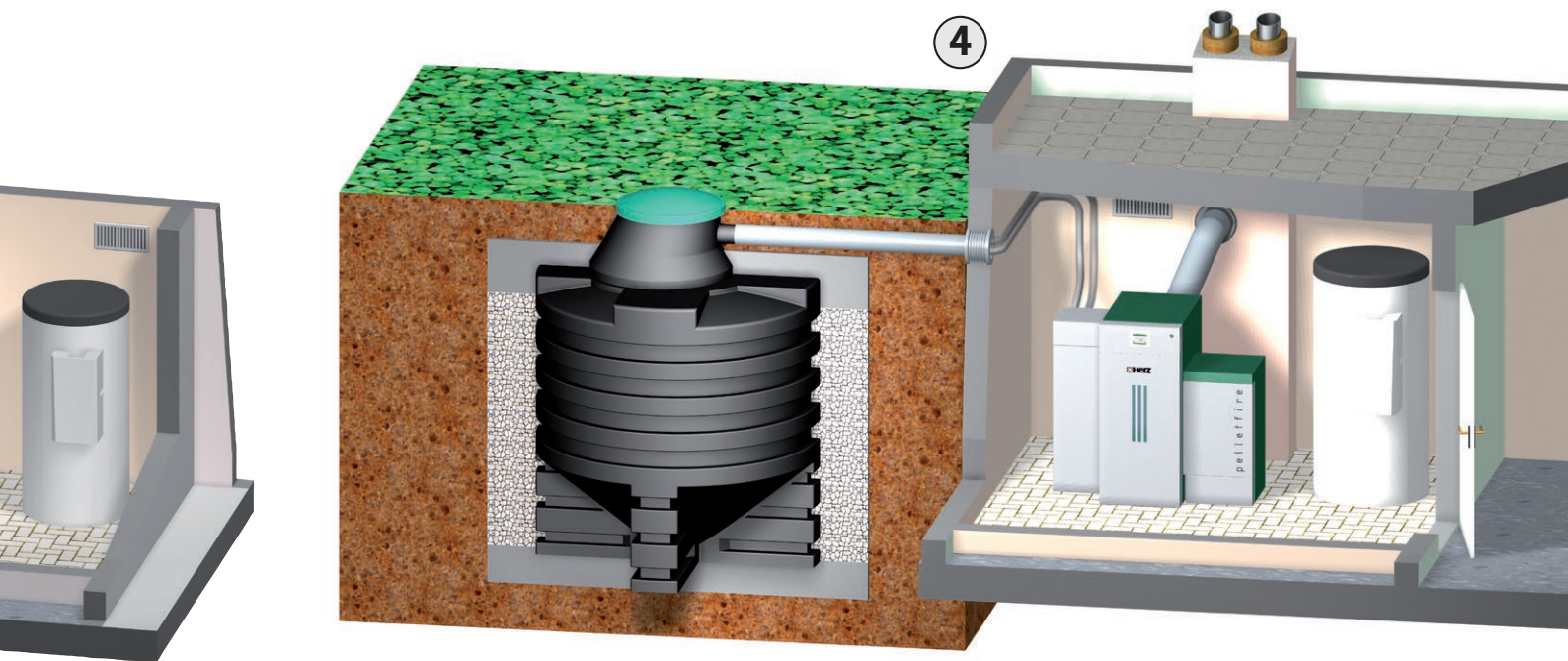
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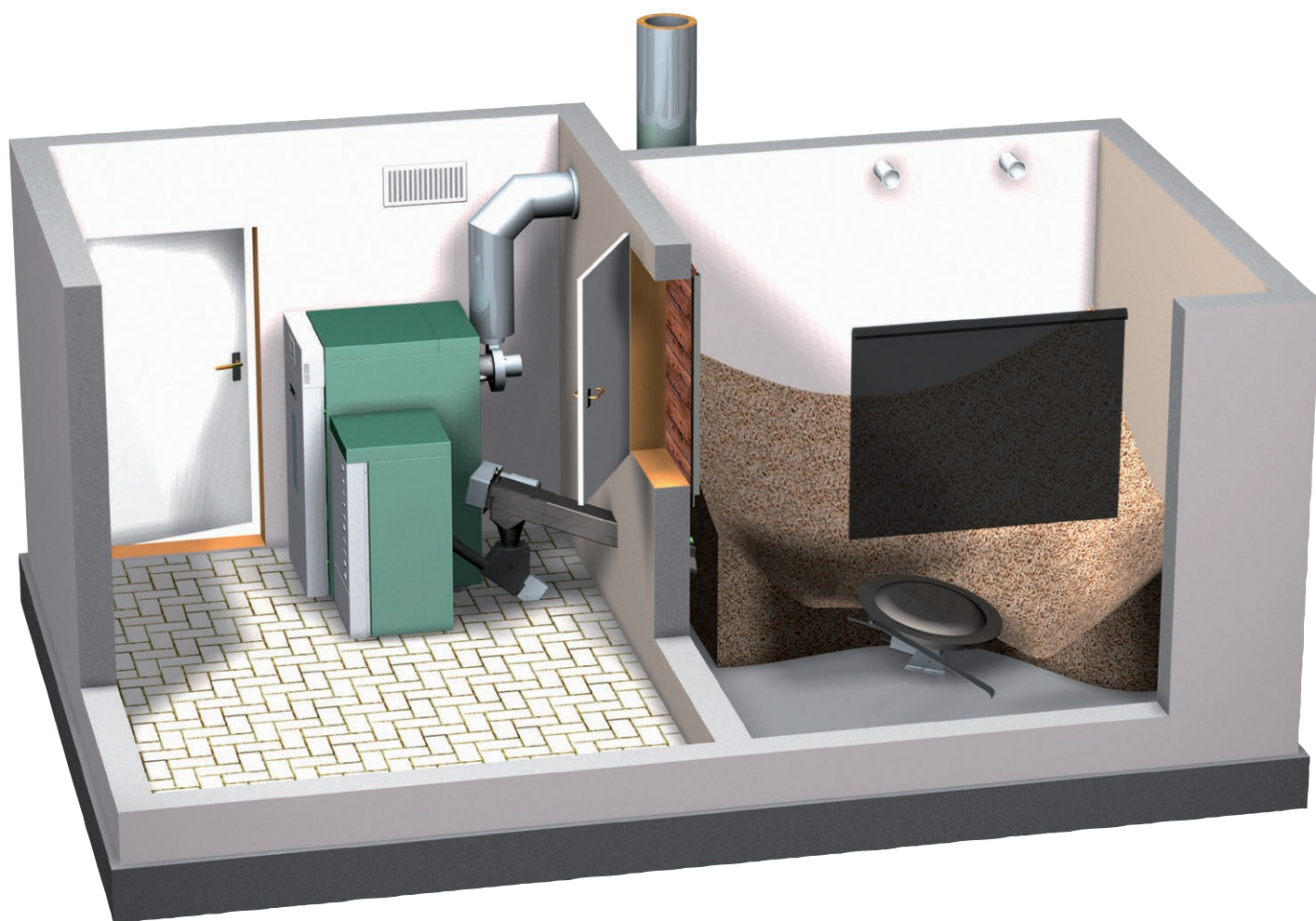
... with suction system



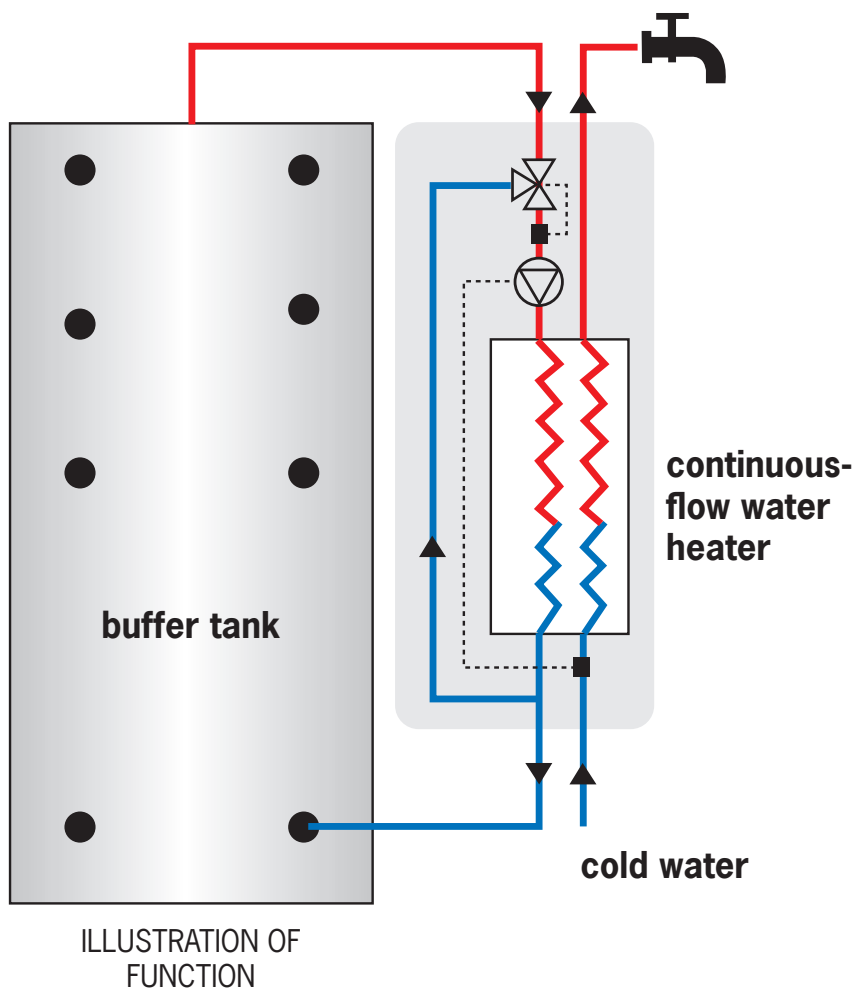
Further discharge systems

Efficient storage room discharge with an agitator

For an efficient discharge in the pellet storage room without sloping floor the system with spring arm agitator is recommended.



HERZ continuous-flow water heater & buffer tanks



continuous-flow water heater

prepares the domestic hot water in an efficient way. The fresh cold water is heated up via a plate heat exchanger with water from the buffer tank.

The fresh water module is characterized by its compact design, low pressure drop, low water content and is easy to install

The advantages:

- Domestic hot water – hygienic & fresh
- Easy to install
- Very compact (low space required)

Useful supplementation for your heating system: HERZ buffer tanks

Integrating a buffer tank into the system provides an energy store. It reduces the number of boiler start-ups, guarantees a continuous heat leak, and allows the boiler to optimise when it turns on.

Using a buffer store, continuous power generation can be sustained for a longer period. Thus frequent cycling of the boiler can be avoided and the level of efficiency improved.

Opportunities & combinations



Hopper for the discharge with a suction system

The suction hopper is available in 2 sizes:

- 86 liter / 56 kg
- 109 liter / 71 kg



Hopper for hand filling

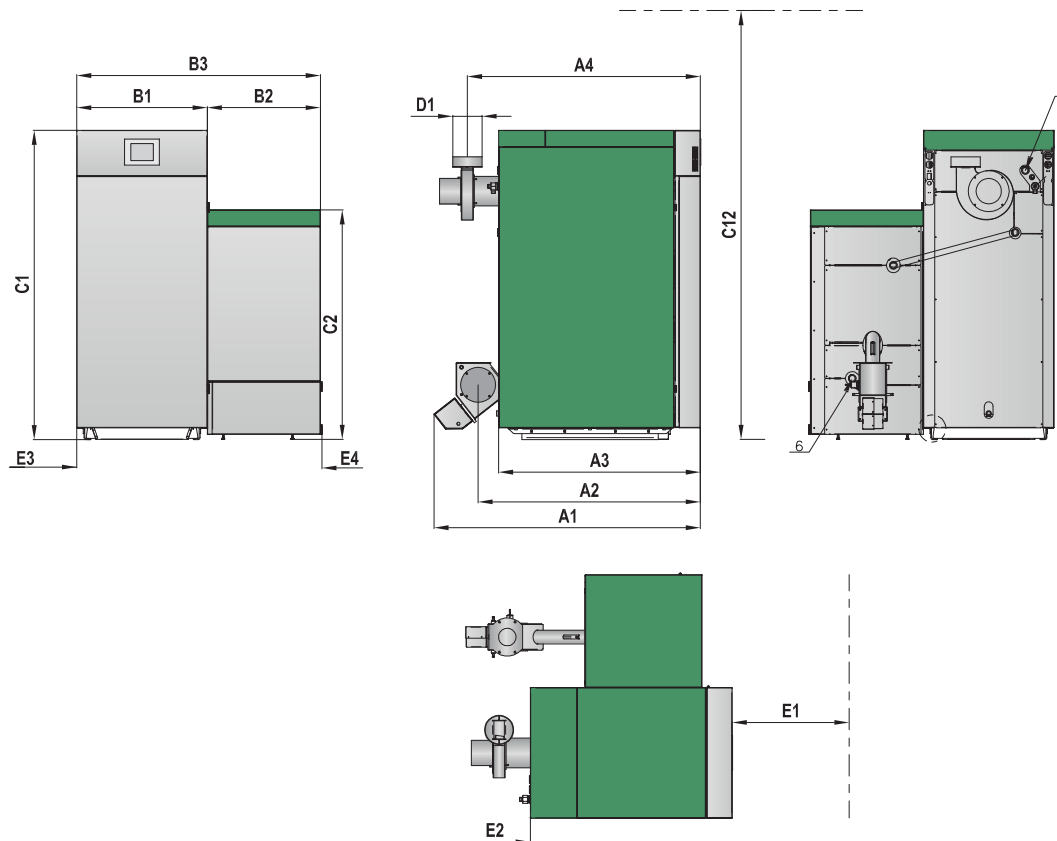
If the automatic discharge from a storage room is not required, the customer has the option for filling the hopper manually by hand.

The hopper for manual filling is available in 2 sizes:

- 165 liter / 107 kg
- 195 liter / 127 kg

Even more comfort ensures the big hopper for hand filling with 400 liter (260 kg) for pelletfire.

Dimensions & technical data pelletfire 20-40



pelletfire 20-40 We reserve the right of error and technical modifications!

Technical data		20/20		30/30		40/30	
		logs	wood pellets	logs	wood pellets	logs	wood pellets
Output range	kW	9,9-22,0	6,0-20,0	9,9-30,0	6,0-30,0	9,9-40,0	6,0-30,0
Boiler weight	kg	622	183	622	183	622	183
Degree of efficiency η_F	%	>93	>94	>93	>93	>93	>93
Permissible operating pressure	bar	3,0	3,0	3,0	3,0	3,0	3,0
Max. permissible operating temperature	°C	95	95	95	95	95	95
Water capacity	ltr.	108	29	108	29	108	29
Flue gas mass flow rate at full load	kg/s	0,013	0,013	0,019	0,019	0,025	0,019
Flue gas mass flow rate at part load	kg/s	0,0068	0,0050	0,0068	0,0050	0,0068	0,0050
Dimensions (mm)							
A1	Length - total	1365		1365		1365	
A2	Length boiler plus distance to BBP centre line	1140		1140		1140	
A3	Length - casing	1035		1035		1035	
A4	Length boiler plus distance to flue pipe centre line	1195		1195		1195	
B1	Width	670		670		670	
B2	Width	580		580		580	
B3	Width	1250		1250		1250	
C1	Height	1585		1585		1585	
C2	Height	1175		1175		1175	
C12	Minimum room height	2200		2200		2200	
D1	Flue pipe – diameter	150		150		150	
E1	Minimum space at the front	600		600		600	
E2	Minimum space at the back	600		600		600	
E3	Minimum space left	250		250		250	
E4	Minimum space right	150		150		150	

1... flow connection 1"
6... return flow connection 1"

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HERZ biomass systems fall below the strictest emission regulations.



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