Heating with **pellets**

YOUR RELIABLE PARTNER
Herz since 1896
Present on the market for over 110 years

pelletstar

10 - 60 kW

Herz®

Competence is our success...

HERZ **FACTS:**

- 22 companies
- Group headquarters in Austria
- Research & development in Austria
- Austrian owned
- 1,600 employees in more than 75 countries
- 11 production sites

HERZ – The company
Founded in 1896, Herz has been continuously active in the market for more than 117 years. With 6 sites within Austria, another 5 in Europe and more than 1,500 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 200 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. For a number of years, HERZ has worked with local research and training institutes. 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 furnace 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.

Convenient heating...

Decades of experience

- In-house development and test centre
- Austrian quality with Europe-wide sales
- Comprehensive service
- ISO 9001 certification

The great advantages of HERZ pelletstar:

- Highest efficiency
- Simple and automatic operation
- Automatic heat exchanger cleaning
- Automatic combustion grate cleaning
- High operation safety
- Efficient insulation
- Automatic pellet discharge with different systems available
- Compact design
- Constructed from high quality materials

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

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 controller for:

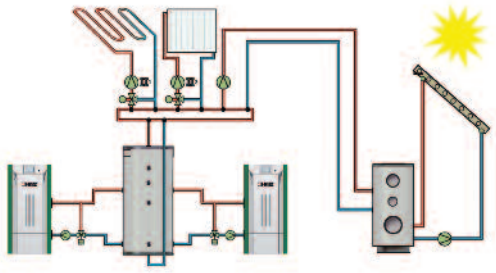
- Buffer management
- Return flow temperature bypass (pump and mixer valve)
- Domestic hot water preparation
- controlled heating circuits (pump and mixer valve)
- solar circuit control
- frost protection

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.)

Cascade switching

Using the HERZ T-CONTROL, up to 8 HERZ boilers equipped with T-CONTROL can be switched to cascade (CAN BUS). Cascade switching offers superior load profile matching, higher efficiency, and ensures even distribution of wear by automatically switching the lead role.

Benefits and **details...**

The HERZ T-CONTROL with touch display

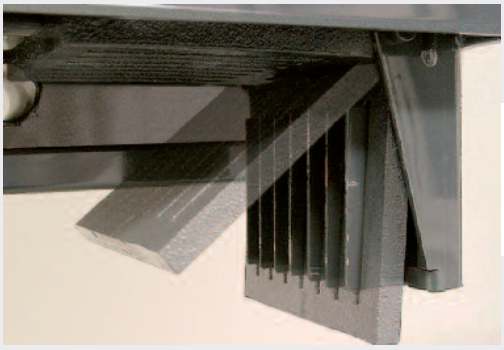
Central control unit as standard for:

– 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.)

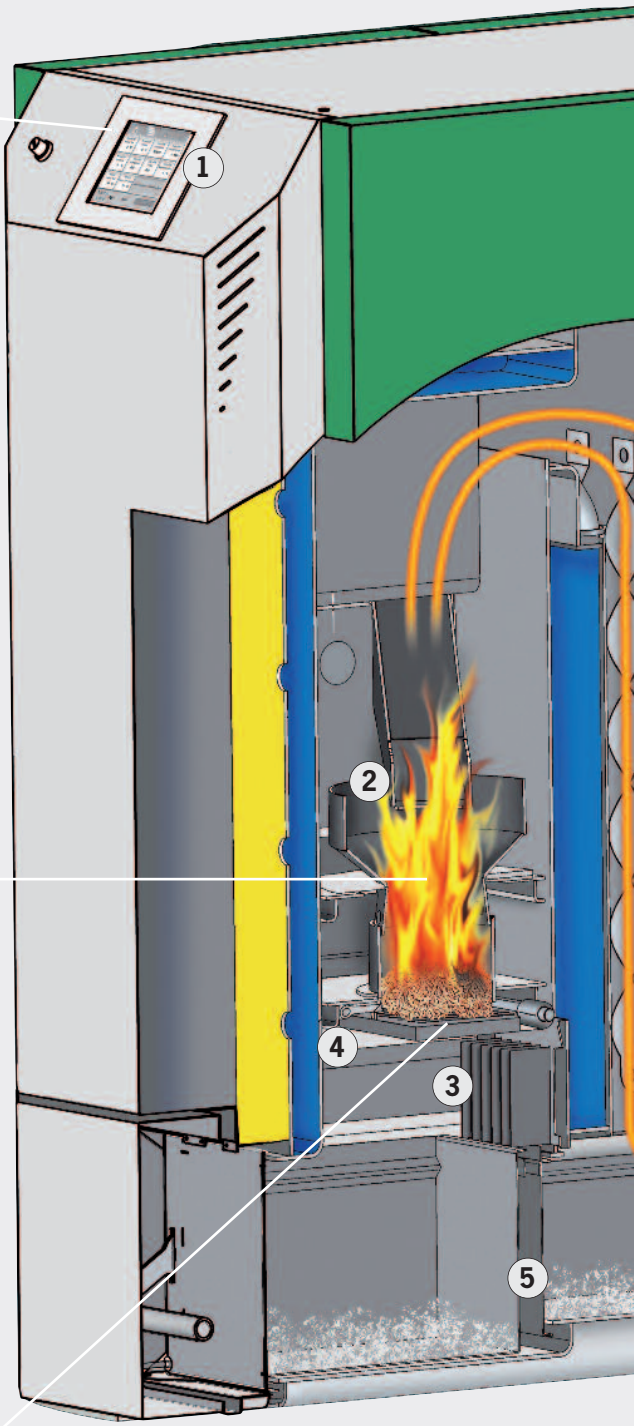
High temperature-resistant stainless steel burning chamber

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



Automatic cleaning of the combustion grate

- Complete cleaning of combustion grate which automatically tips ash to extraction point.
- A clean combustion grate guarantees an optimum air supply.
- Minimises the manual cleaning requirement.

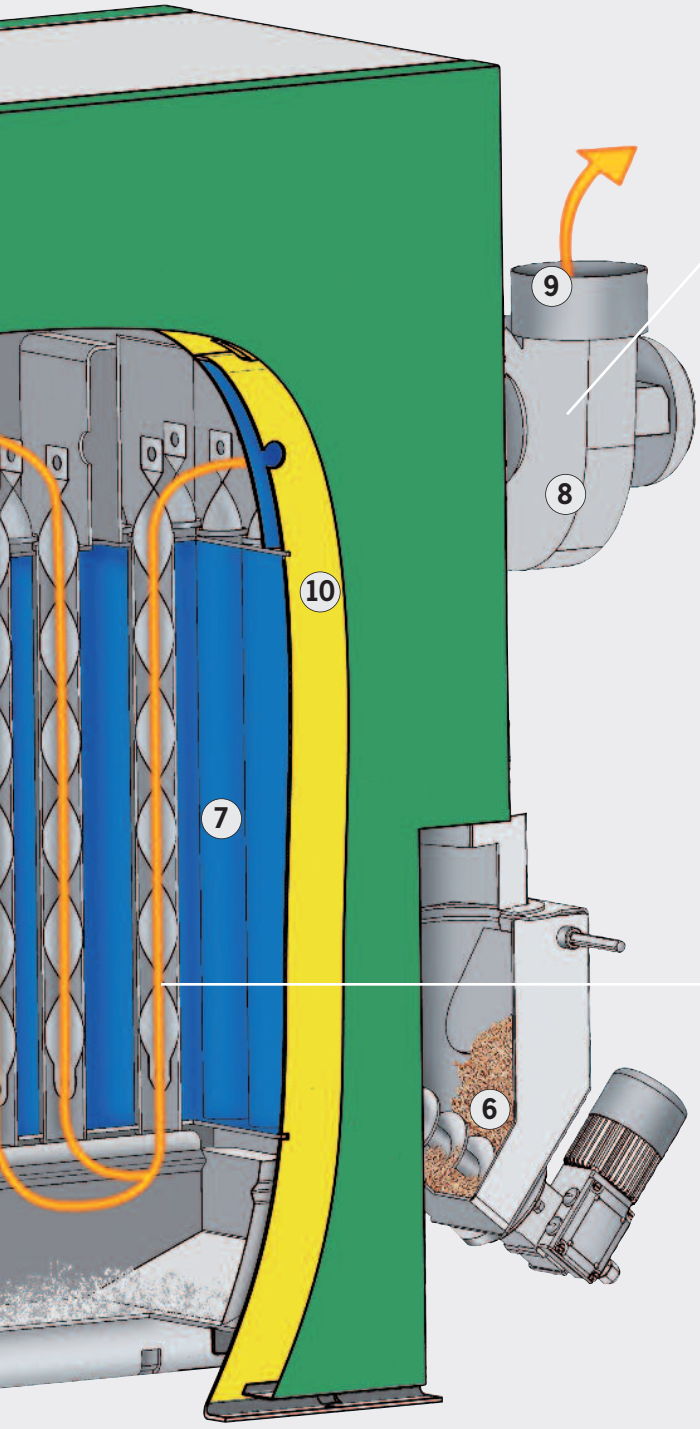


1 **T-CONTROL**
central control unit

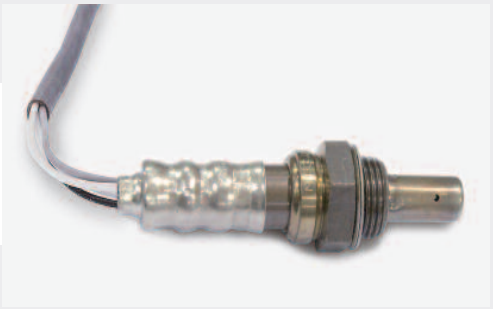
2 **High temperature-resistant burning chamber**

3 **Tipping grate**
for complete cleaning

...of HERZ pelletstar 10-60



Energy saving combustion via the Lambda probe



- Thanks to the in-built Lambda probe, which continuously monitors the flue gas values, the boiler reacts to changes in fuel quality ensuring optimum combustion and extremely low emission values.
- The Lambda probe controls the air supply ensuring complete combustion, even in partial load operation.
- The results are low fuel consumption and the lowest emission values even with different fuel qualities.

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.

4 Automatic ignition
using hot air fans

5 ash-box for combustion and fly ash
easy access from the front, easy to handle

6 BBP (back burn protection device; flap)

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

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.

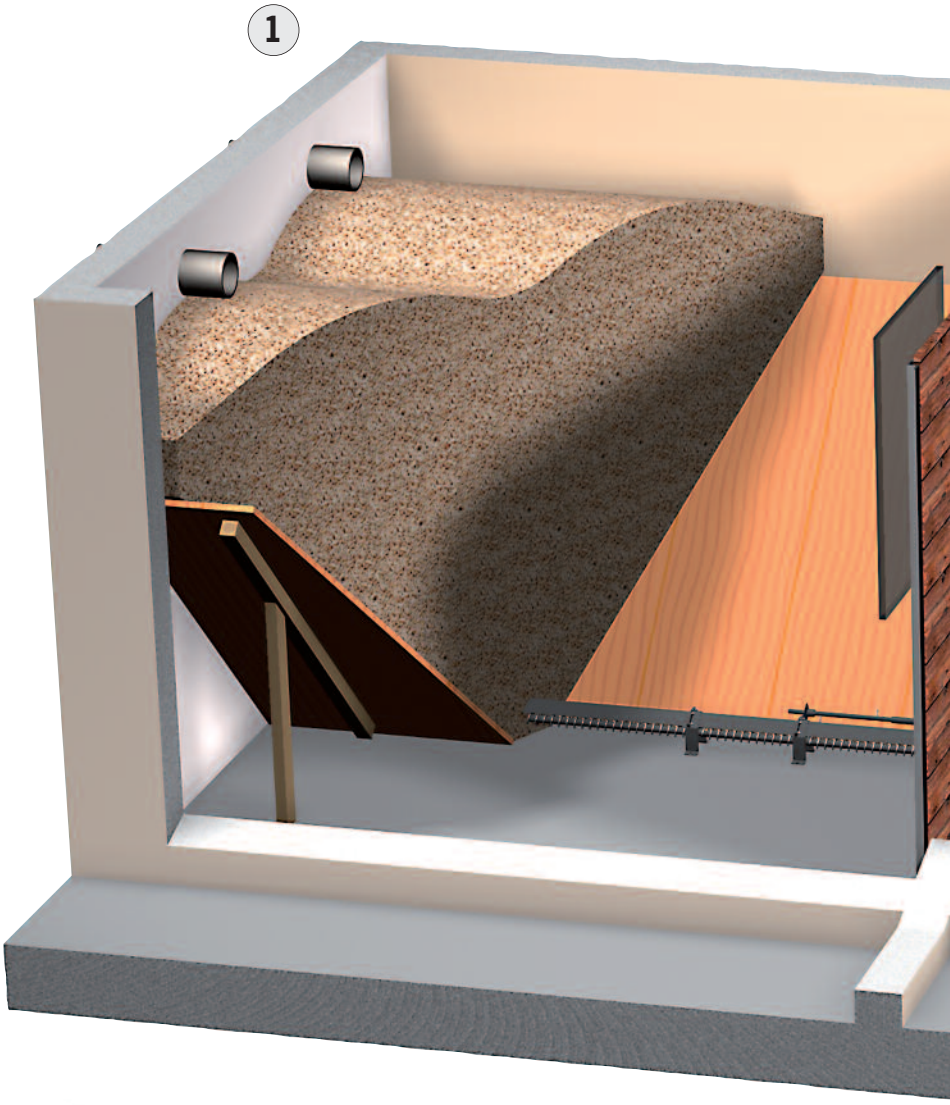
Flexible screw discharge from HERZ

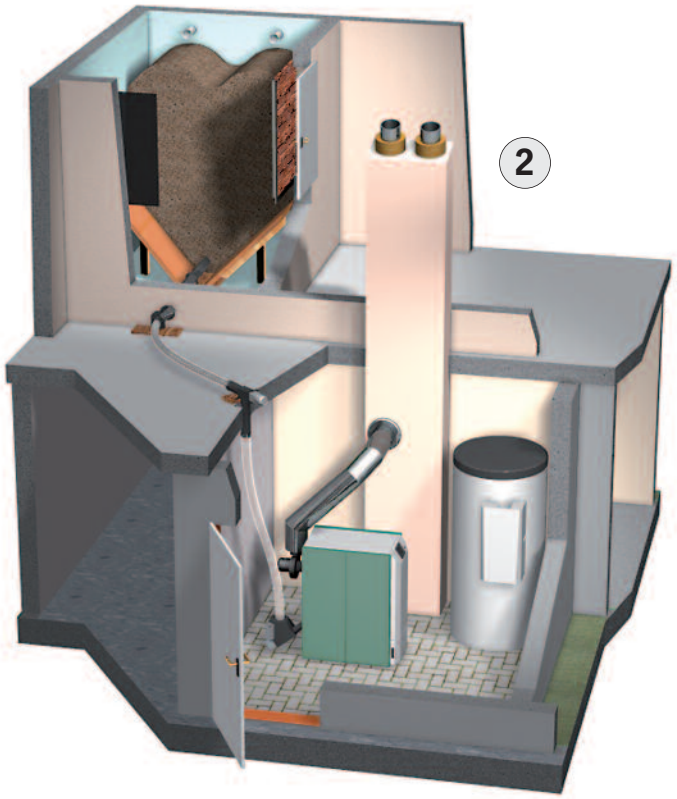
1 The room discharge with a flexible screw is an easy and energy saving solution to empty the storage room in an efficient way.

2 The storage room is higher than the boiler room or located in the attic of your house? This is no problem for the flexible screw discharge with chute pipe system!

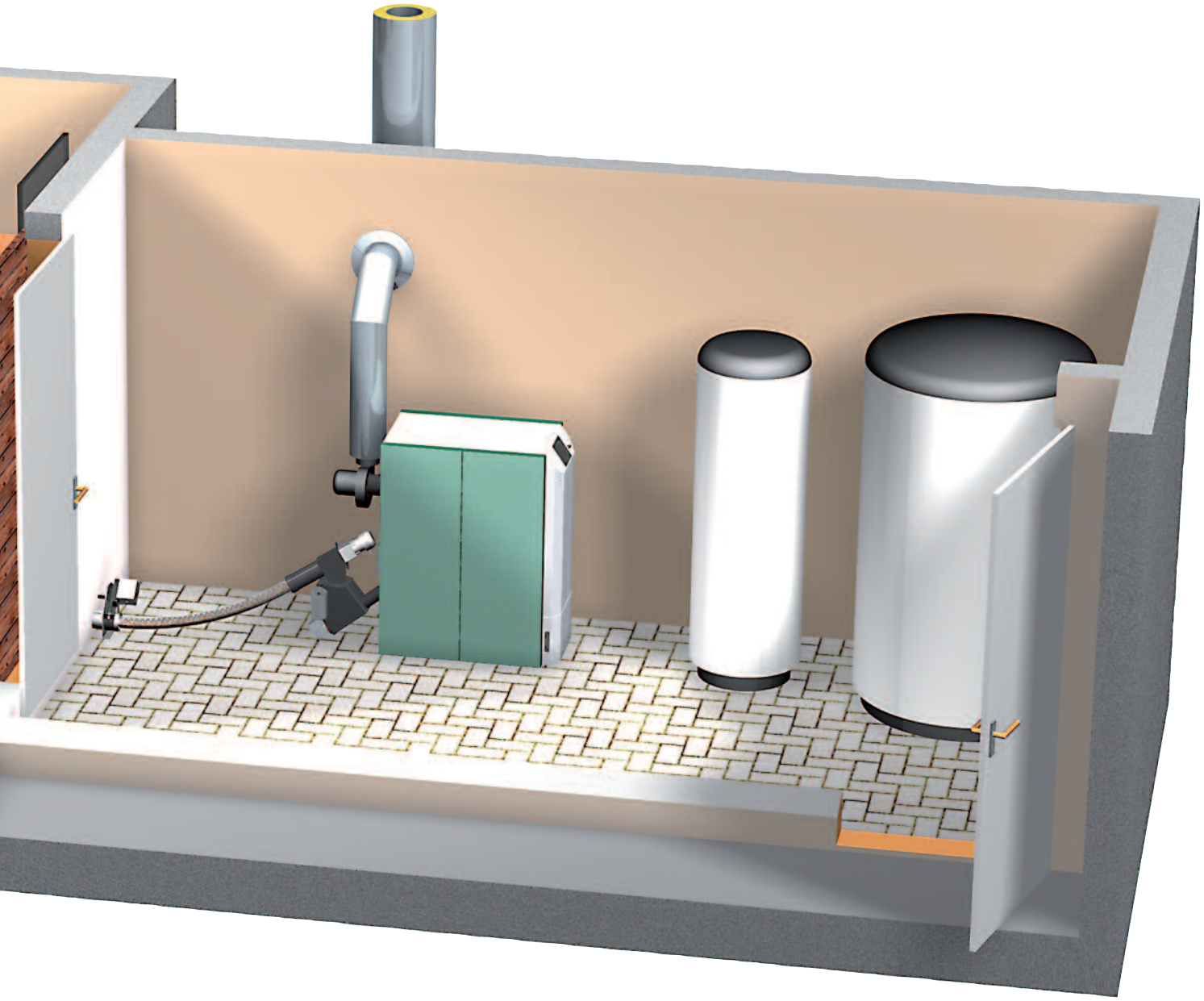
3 Room discharge with flexible screw and transfer hopper (with 2 flexible screws): even more flexible and suitable for longer distances

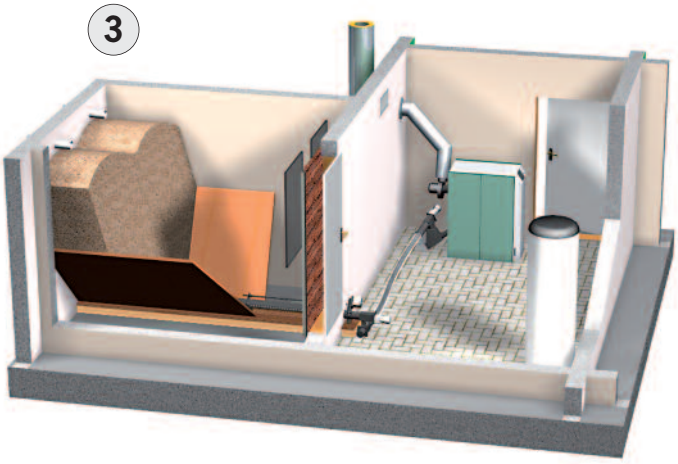
4 Room discharge with flexible screw from a bag silo. The bag silo can normally be placed into the boiler room (please pay attention to your local safety laws!). This solution is used if no separate storage room is available.

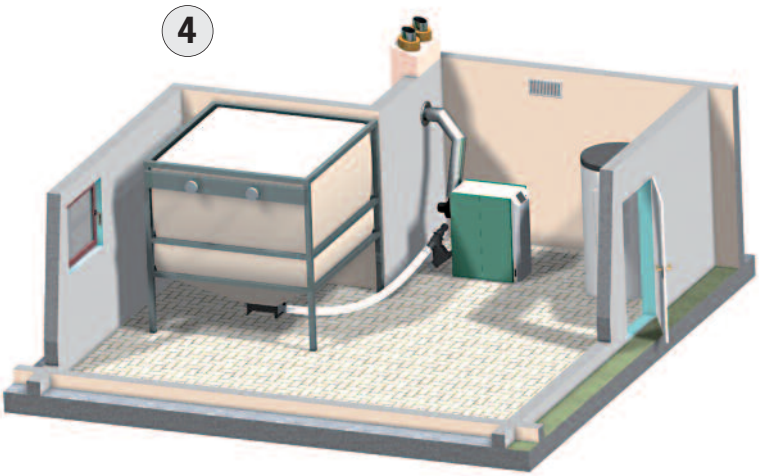




... with flexible screw







Discharge systems ...

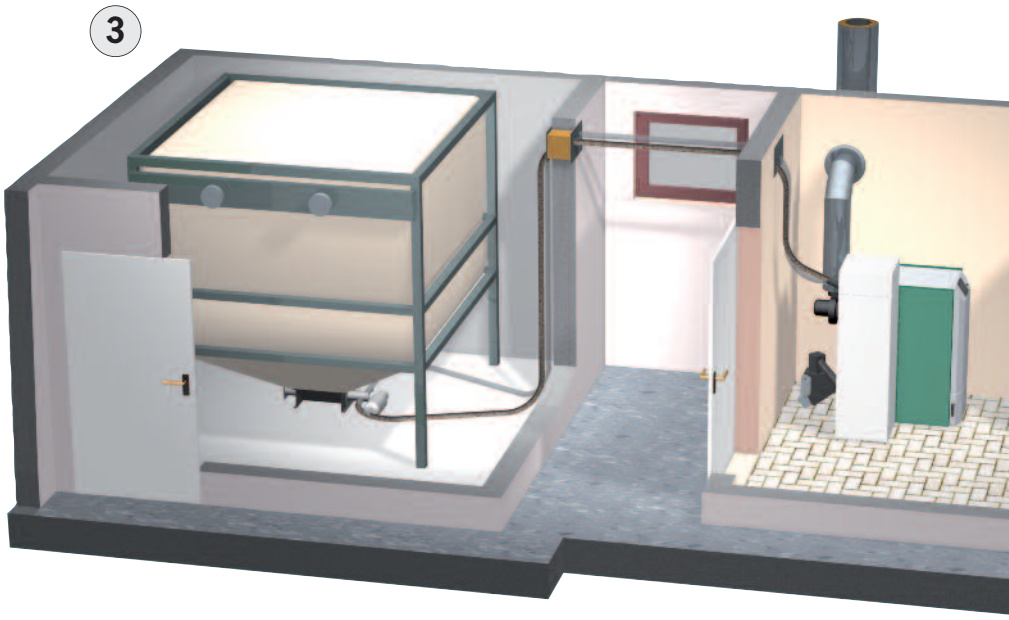
HERZ Suction systems for longer distances to the boiler

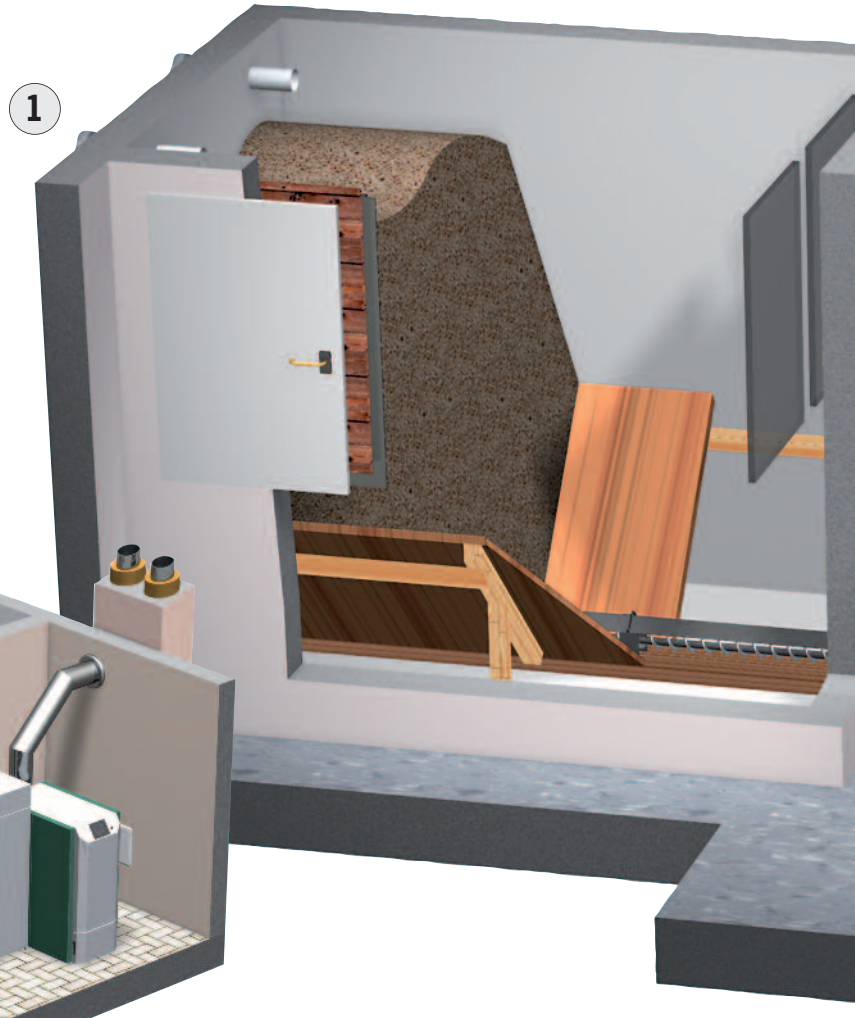
1 Room discharge with a modular screw (in the storage room) and in combination with suction turbine.

2 4-point suction system
The positioning of the 4 suction probes can be individually selected. The system can be easily installed, is adaptable to different storageroom situations and is an universal solution.

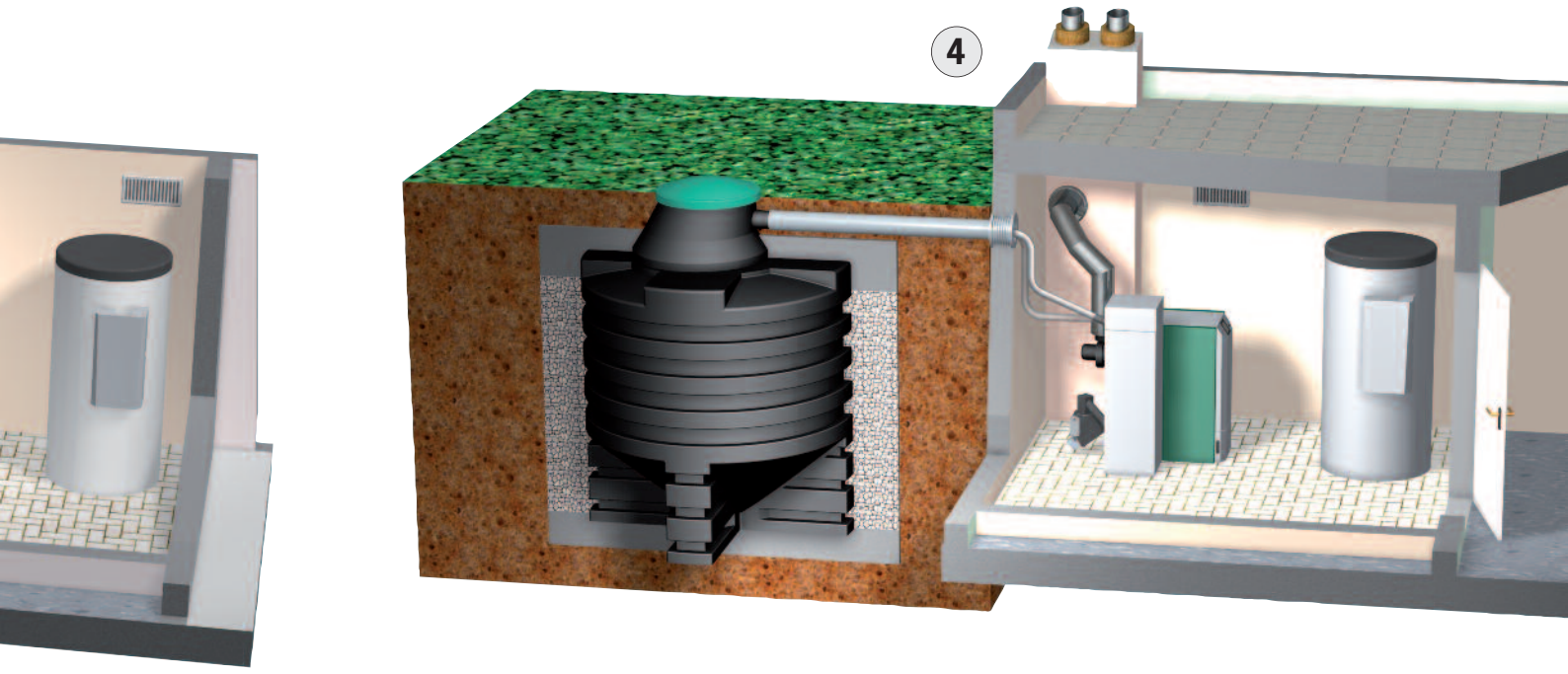
3 Suction discharge from a bag silo. The bag silo can be assembled easy & fast.

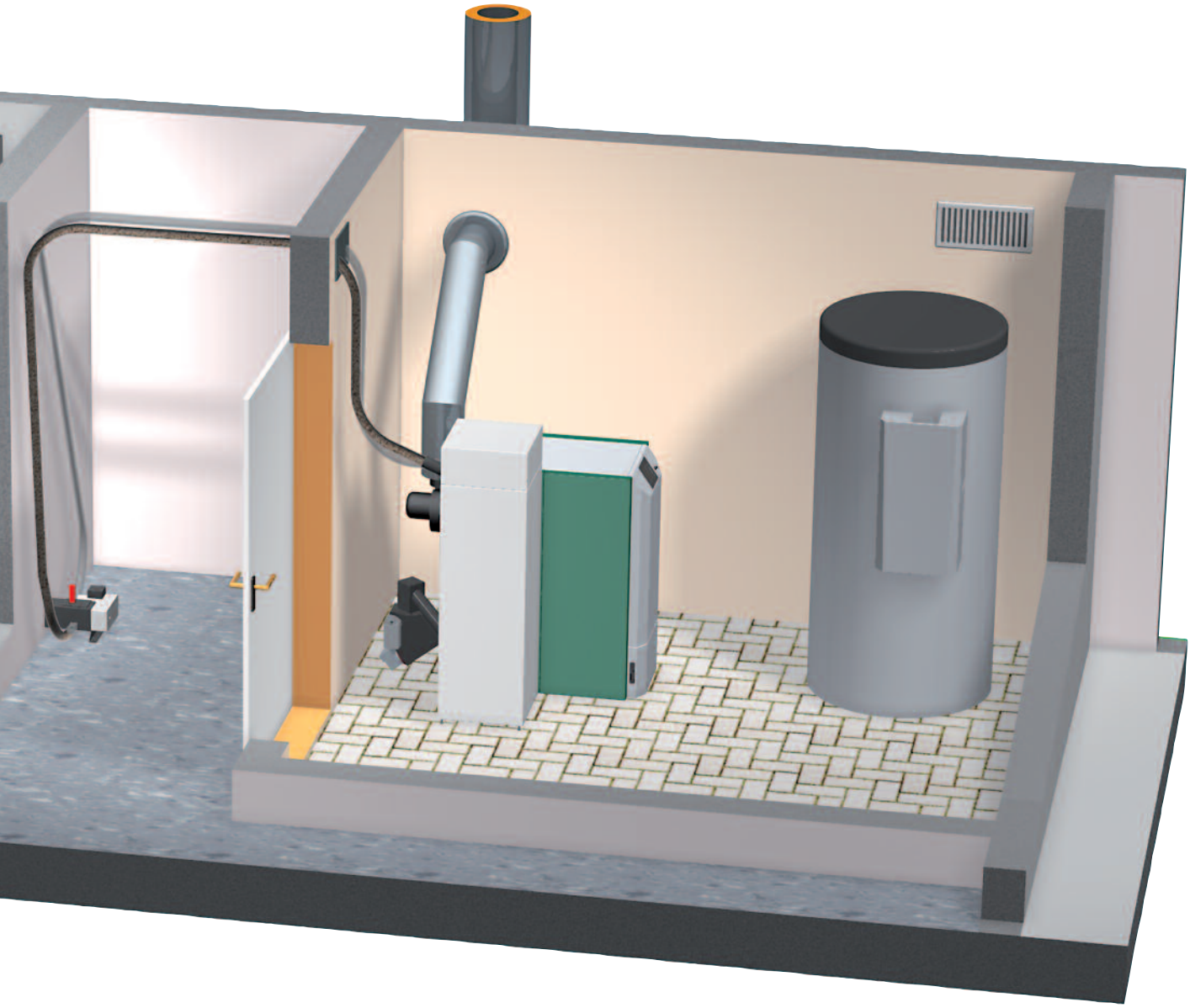
4 Suction discharge from a ground silo (outside of the house).





... with suction system

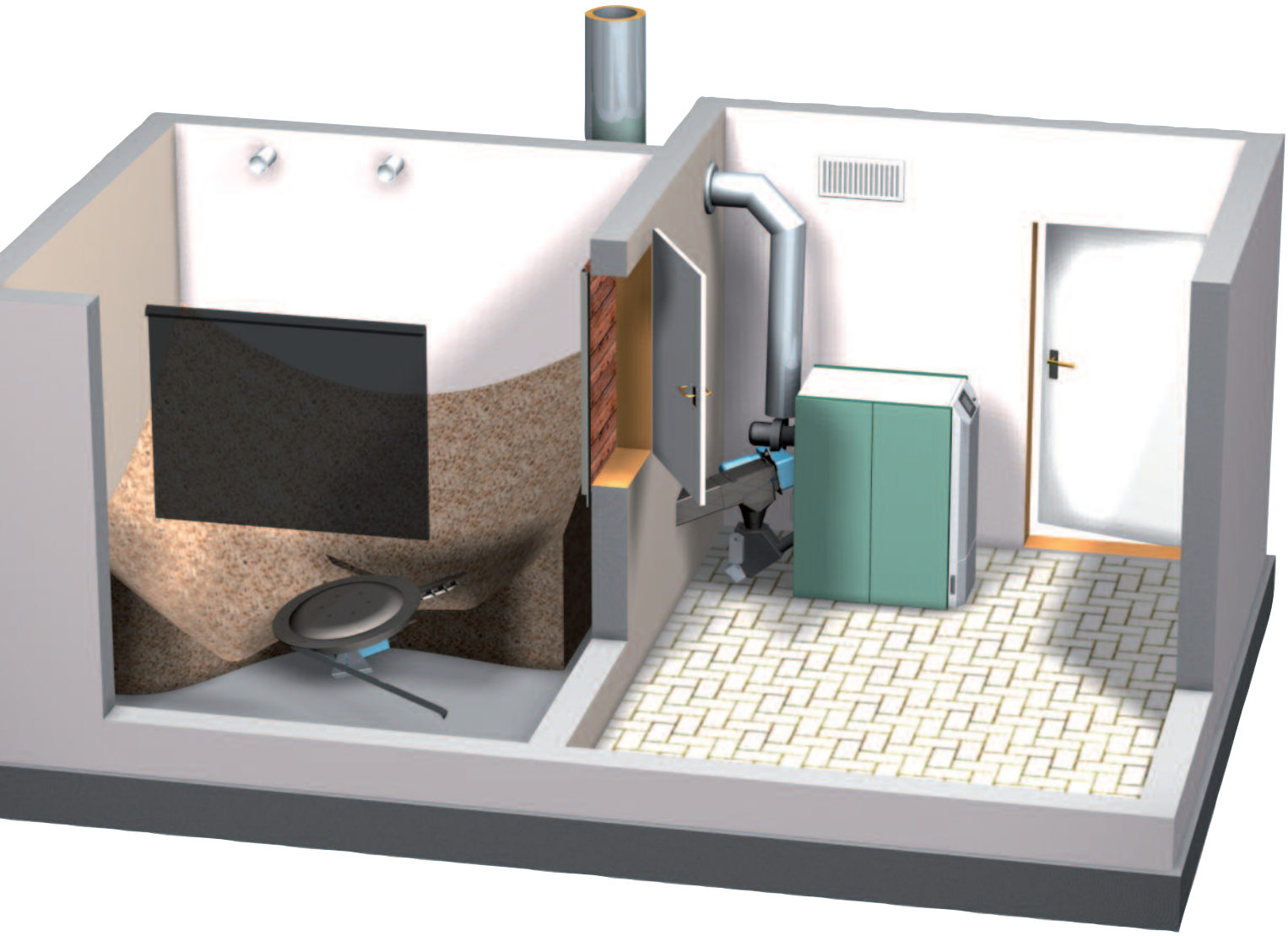




Another discharge system

Efficient storage room discharge with an agitator

The pellet agitator in the storage room allows an efficient use of storage space by eliminating the slip angles.



HERZ continuous-flow water heater & buffer tanks

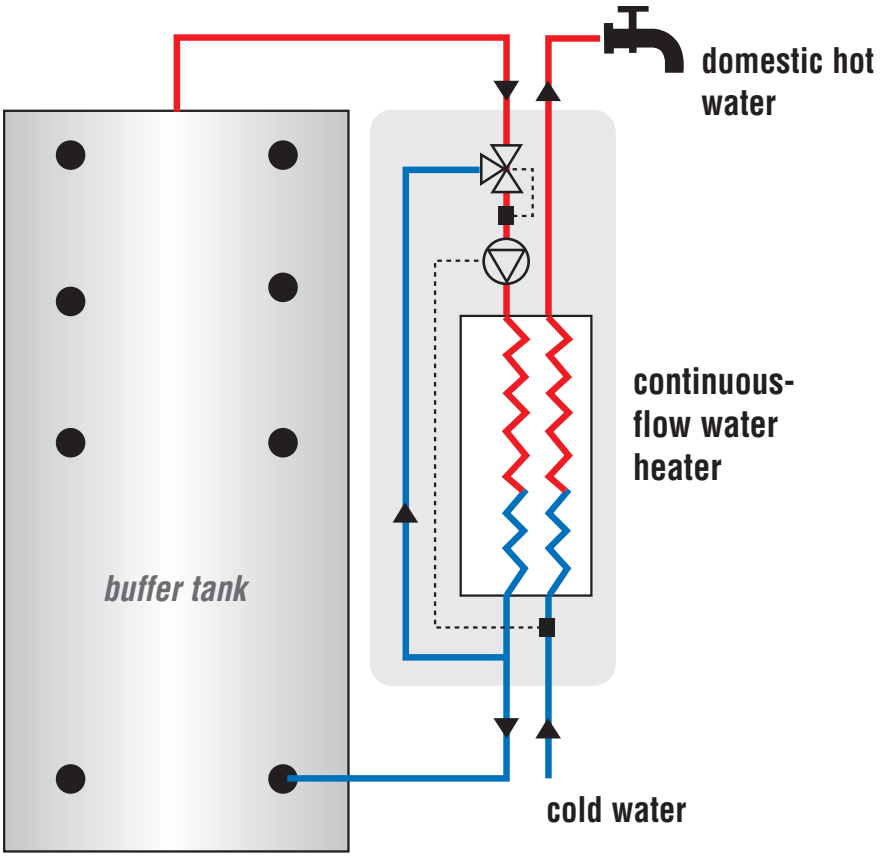


illustration of function

The HERZ continuous-flow water heater

prepares the domestic hot water in an efficient way. The fresh cold water is heaten 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 pelletstar suction hopper is available in 2 sizes:
- 86 liter / 56 kg
- 109 liter / 71 kg

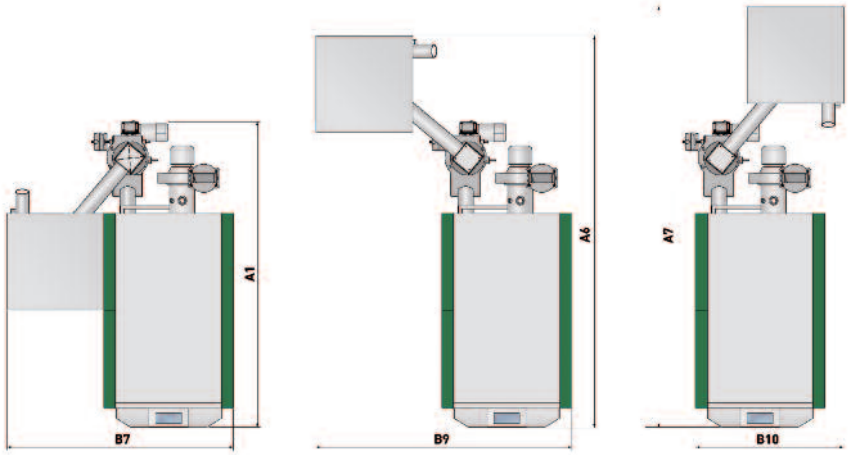
The hopper with 86 liter can be used with the pelletstar 10-30, and the hopper with 109 liter can be installed with the pelletstar boiler 10-60.

Hopper for hand filling

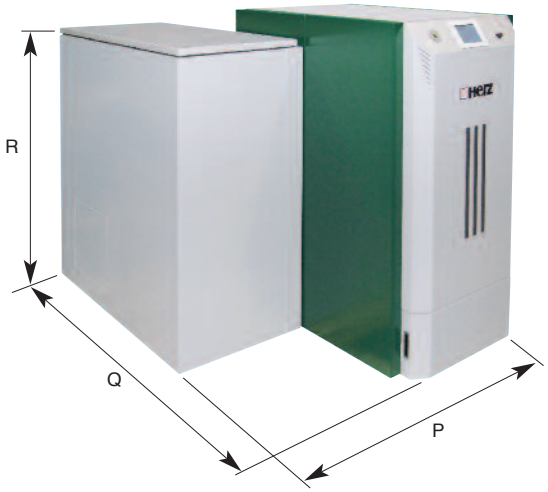
If the automatic discharge from a storage room is not required, the costumer has the option for filling the hopper manually by hand.
The hopper for manual filling is available in 2 sizes:
- 165 liter / 107 kg
- 195 liter / 127 kg

The hopper with 165 liter can be used with the pelletstar 10-30, and the hopper with 195 liter can be installed with the pelletstar boiler 10-60.
Even more comfort ensures the big hopper for hand filling with 400 liter (260 kg) for pelletstar 10-30 and 480 Liter (310 kg) for pelletstar 45-60.

suction hopper / hopper for hand filling



big hopper for hand filling



pelletstar 10-30 with suction hopper 86 liter or hopper for hand filling165 liter

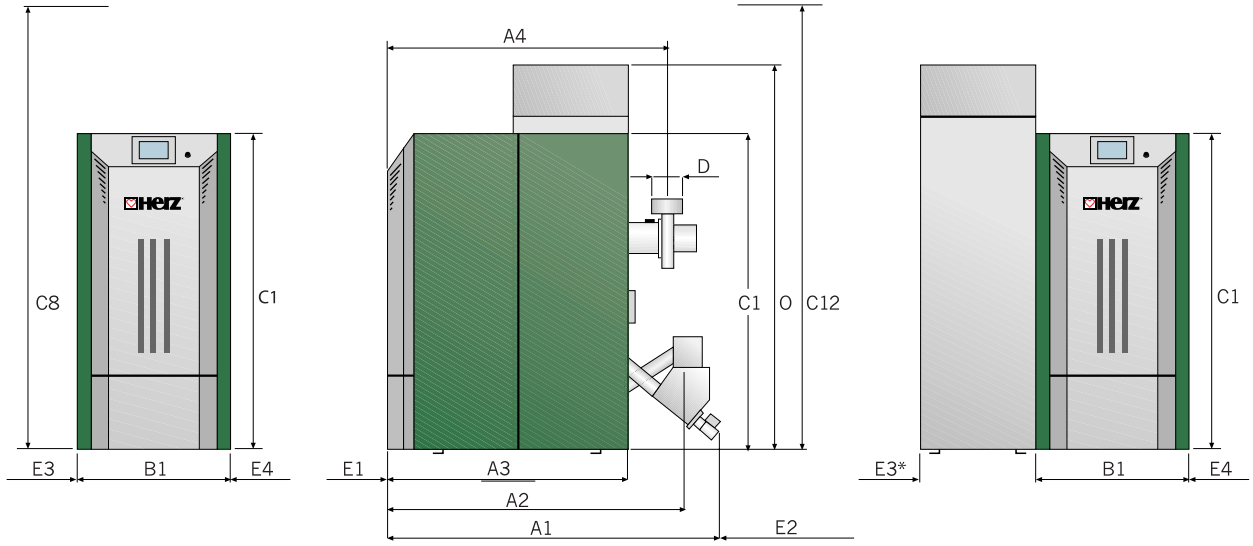
pelletstar	10 / 20 / 30
dimemsions (mm)	
A1	1400
B7	1035
A6	1785
B9	1180
A7	1930
B10	660

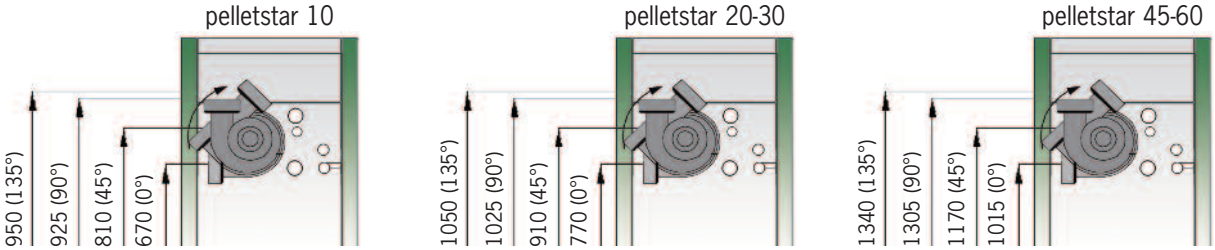
pelletstar 10-30 with suction hopper 109 liter or hopper for hand filling195 liter

pelletstar	10	20	30	45	60
	1400	1400	1400	1620	1620
	1035	1035	1035	1195	1195
	1785	1785	1785	2010	2010
	1240	1240	1240	1400	1400
	1990	1990	1990	2210	2210
	660	660	660	660	660

pelletstar 10-60 with big hopper for hand filling

pelletstar	10	20	30	45	60
dimemsions (mm)					
P	1200	1200	1200	1365	1365
Q	1750	1750	1750	1825	1825
R	1150	1150	1150	1470	1470





pelletstar 10-60 We reserve the rights for technical modifications!

Technical data		10	20	30	45	60
Output range	kW	4,8-16	6,2-21	6,2-30	13,4-45	13,4-60
Boiler weight	kg	261	310	310	518	518
Degree of efficiency η_F	%	>93	>94	>93	>95	>95
Permissible operating pressure	bar	3,0	3,0	3,0	3,0	3,0
Max. permissible operating temperature	°C	95	95	95	95	95
Water capacity	ltr.	55	78	78	178	178
Flue gas mass flow rate at full load	kg/s	0,0079	0,014	0,019	0,026	0,035
Flue gas mass flow rate at partial load	kg/s	0,0040	0,0053	0,0053	0,0094	0,0094
Dimensions (mm)						
A1 Length - total		1400	1400	1400	1620	1620
A2 Length boiler plus distance to BBP centre line		1235	1235	1235	1455	1455
A3 length - casing		900	980	980	1140	1140
A4 Length boiler plus distance to flue pipe centre line		1065	1140	1140	1290	1290
B1 width		590	590	590	750	750
C1 height		1130	1230	1230	1480	1480
C8 Minimum room height		1500	1600	1600	2100	2100
D flue pipe – diameter		130	130	130	150	150
E1 Minimum space at the front		750	750	750	750	750
E2 Minimum space at the back		500	500	500	600	600
E3 Minimum space left (without hopper)		750	750	750	750	750
E3* Minimum space left (with hopper)		500	500	500	500	500
E4 Minimum space right		150	150	150	150	150

pelletstar 10/20/30: flow connection 1" return flow connection 1"
pelletstar 45/60: flow connection 6/4" return flow connection 6/4"

Dimensions with additional hopper* (mm)

O Height with suction hopper 86 liter	1510	1510	1510	–	–
O Height with suction hopper 109 liter	1755	1755	1755	1755	1755
O Height with hopper for hand filling 165 liter	1350	1350	1350	–	–
O Height with hopper for hand filling 195 liter	1597	1597	1597	1597	1597
C12 Minimum room height for suction hopper 86 liter or hopper for hand filling 165 liter	1800	1800	1800	–	–
C12 Minimum room height for suction hopper 109 liter or hopper for hand filling 195 liter	2100	2100	2100	2100	2100
C12 Minimum room height for big hopper for hand filling	1500	1600	1600	2100	2100

HERZ **Customer-orientated...**

- Advice during planning
- Planning of energy centre and fuel storage room
- Planning of chamber discharge according to customer requirements and local conditions
- Planning of installation according to customer requirements
- Comprehensive services

- HERZ training:
  - for the machine operator
  - for designers and technical offices
  - for pipe fitters and installers
  - as well as continuous training of the maintenance staff

Business partners in:

AUSTRIA
BELGIUM
BULGARIA
CANADA
CROATIA
CZECH REPUBLIC
DENMARK
ESTONIA
FINLAND
FRANCE
GERMANY
GREAT BRITAIN
GREECE
HUNGARY
IRELAND
ITALY
LATVIA
LITHUANIA
LUXEMBOURG
NETHERLANDS
NORWAY
POLAND
PORTUGAL
ROMANIA
RUSSIA
SERBIA
SLOVAKIA
SLOVENIA
SOUTH TYROL
SPAIN
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HERZ - biomass boilers exceed the strict emission regulations.

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