

Heating with logs & wood pellets



pelletfire

20 - 40



Made in Austria



Competence is our success ...

HERZ FACTS:

- 50 subsidiaries
- Group headquarter in Austria
- Research & development in Austria
- Austrian owner
- 3.000 employees in over 100 countries
- 30 Production sites



Herz Armaturen GmbH - The company

Founded in 1896, HERZ has been continuously active in the market for more than 120 years. With 6 sites within Austria, another 24 in Europe and more than 3,000 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 200 people 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. 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 environment-friendly heating systems with the highest level of convenience and user-friendliness.



BINDER Energietechnik GmbH - Bärnbach

At the factory site in Bärnbach in western Styria large scaled biomass boilers are produced for industrial applications. At the factory with a total area of approx. 6 ha and 6,200 m² production area, about 200 boilers up to 20.000 kW are manufactured every year. A reliable maintenance and repair service provides the service team in Bärnbach / Austria. This is supported by 13 service and sales offices in 11 countries worldwide.

HERZ for the environment

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

HERZ quality

Our HERZ design engineers are in permanent contact with acknowledged research institutions in order to improve the very high standards continuously.



Flexible heating ...



Arrangement of the pellet burner on both sides possible (left or right)!



Pellet burner upgradeable

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.

Log wood M25 (water content max. 25%) according to

- EN ISO 17225-5: Property class A1, A2, B with length L50 and diameter D15

Wood pellets according to

- EN ISO 17225-2: Property class A1
- ENplus, ÖNORM M 7135, DINplus or Swisspellet



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 optionally with logs or wood pellets

Due to the separate combustion chambers there can be flexible switched between log wood and pellets operation.

Automatic ignition of logs

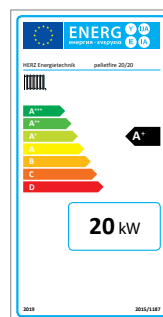
The automatic ignition of the inserted logs with pellets is possible as standard.

Automatic continuation of operations

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

Different pellet discharge systems

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



Energy labelling

Combination boiler **A+**
Combination boiler with integrated system controller **A+**

Benefits and details ...



T-CONTROL - the user-friendly control with touch display

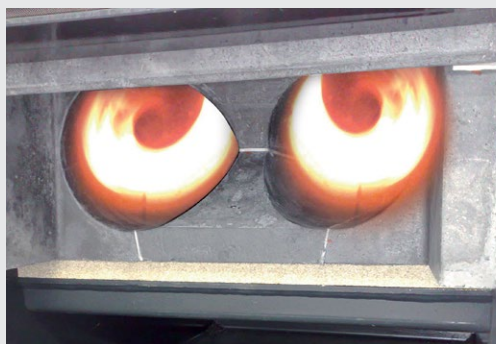
Central control unit as standard for:

- buffer management
- back flow elevation (pump and mixer valve)
- domestic hot water preparation
- controlled heating circuits (pump and mixer valve)
- frost protection monitoring
- Simple screen design and convenient menu guide.
- Up to 55 extension modules possible (further heating circuits, solar circuit control, 2. buffers, etc.)



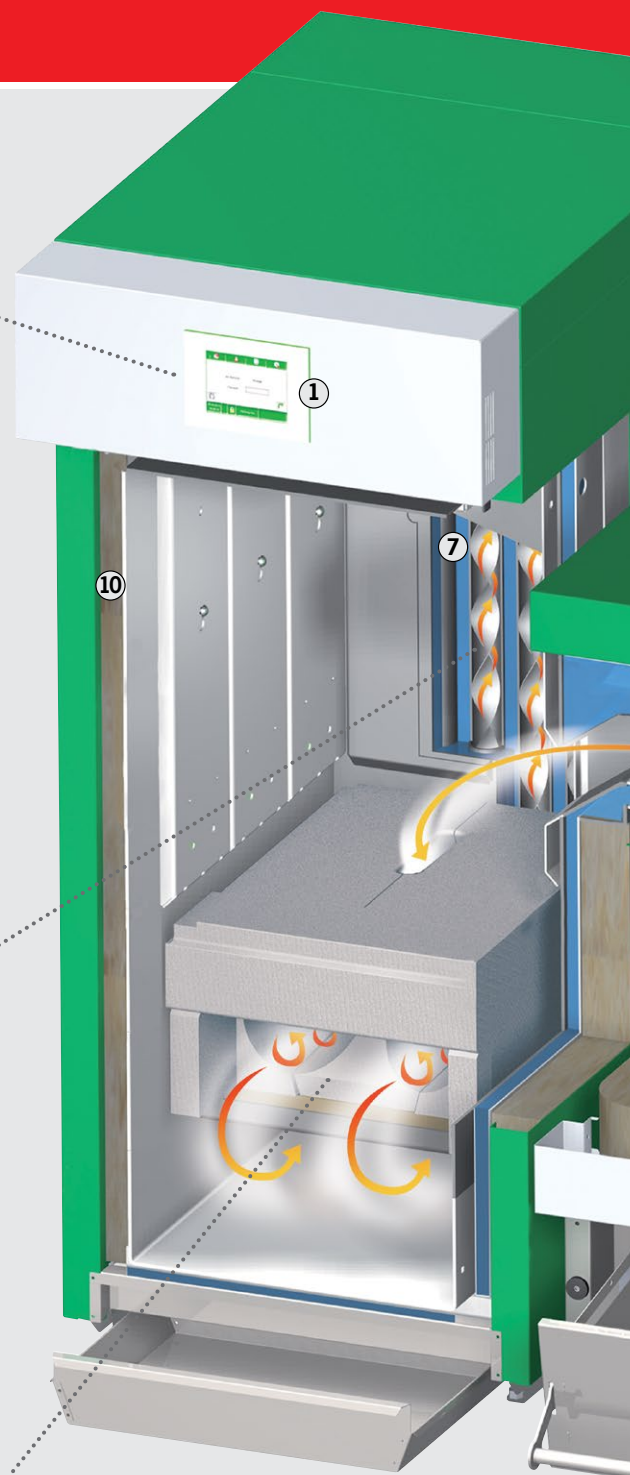
Automatic cleaning of the heat exchanger

- 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 integrated, extractable ash boxes allow an easy ash disposal.

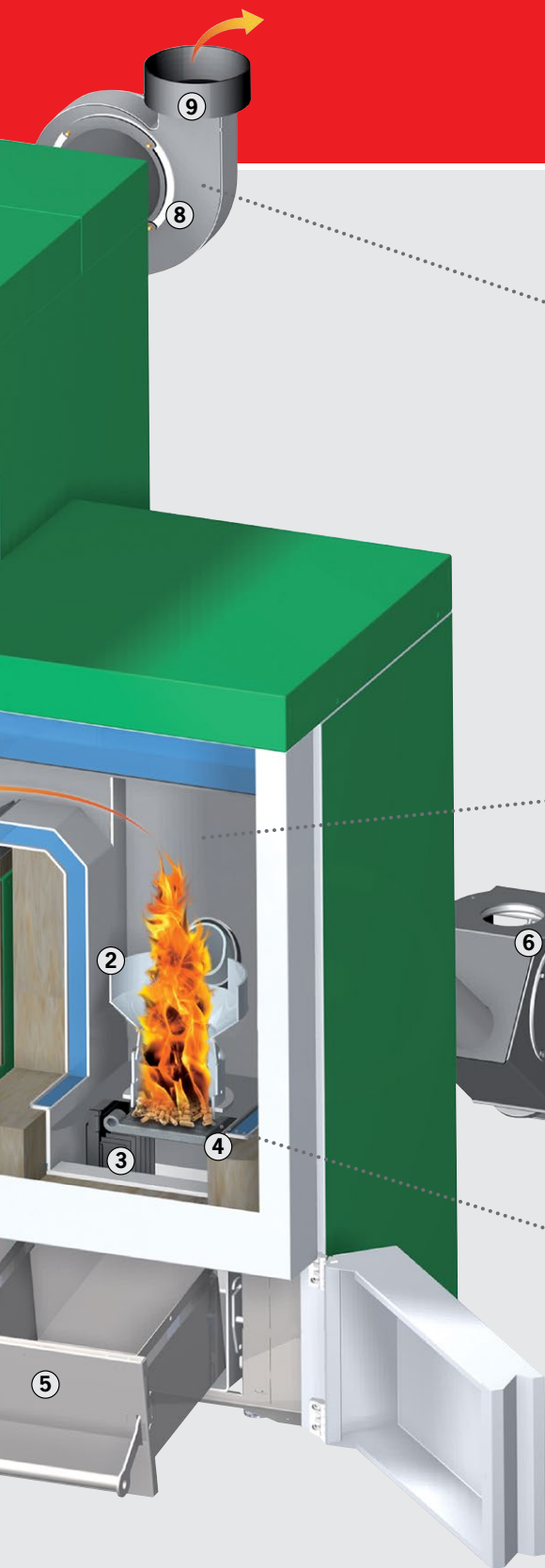


Highly efficient due to the unique double vortex combustion chamber made of SiC (no fireclay)

- The revolutionary double vortex combustion chamber ensures optimum mixing of the combustion gases with oxygen.
- The flame is distributed across 2 chambers and therefore a highly efficient combustion is ensured.
- 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 heat resistant stainless steel-combustion chamber**
3. **Automatic tipping grate at the pellet burner**



Energy saving combustion via the lambda probe



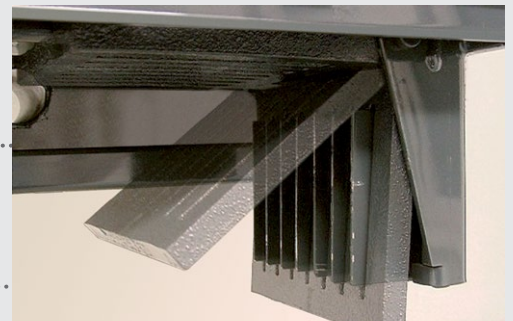
- A built in lambda probe, which monitors continuously the flue gas content values, detects fuel quality changes and ensures optimum combustion and low emission values.
- The lambda probe controls the air supply and ensuring complete combustion, even in part load operation.
- The results are low fuel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

High heat resistant stainless steel-combustion chamber



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

Automatic cleaning via tipping grate



- Complete cleaning of pellets-combustion grate which automatically tips ash to extraction point. Minimizes the manual cleaning requirement.
- Due to the clean combustion grate a optimal air supply is guaranteed.
- The ash from the combustion chamber is dropped into the large ash bin below.
- Unchanged, 1000-times proven combustion system since 2003

4. automatic ignition
via glow rod

5. Combustion ash box from pellet burner
easy access from the front, easy to handle.

6. Certified back fire protection flap (BFP)

7. Pipe heat exchanger
With turbulators and automatic cleaning

8. Lambda probe control
Automatic flue gas and combustion monitoring

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

10. Efficient heat insulation
For the lowest radiation losses

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
- back flow elevation (pump and mixer valve)
- domestic hot water preparation
- controlled heating circuits (pump and mixer valve)
- Solar circuit controll
- frost protection monitoring

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.

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 (heating circuit pump, hot water tank loading pump, circulation pump, mixing valve, switching valve, actuator motors etc.)

... central control unit T-CONTROL



T-CONTROL



Remote access to the control via the myHERZ-portal very easy from everywhere

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-Control directly on the boiler. The processes and parameters can be read and modified any time from anywhere.

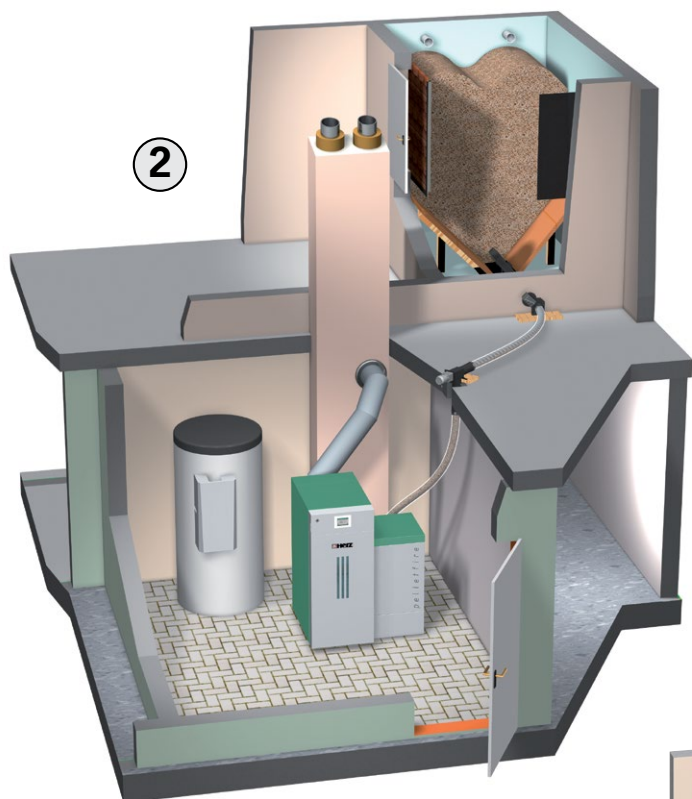
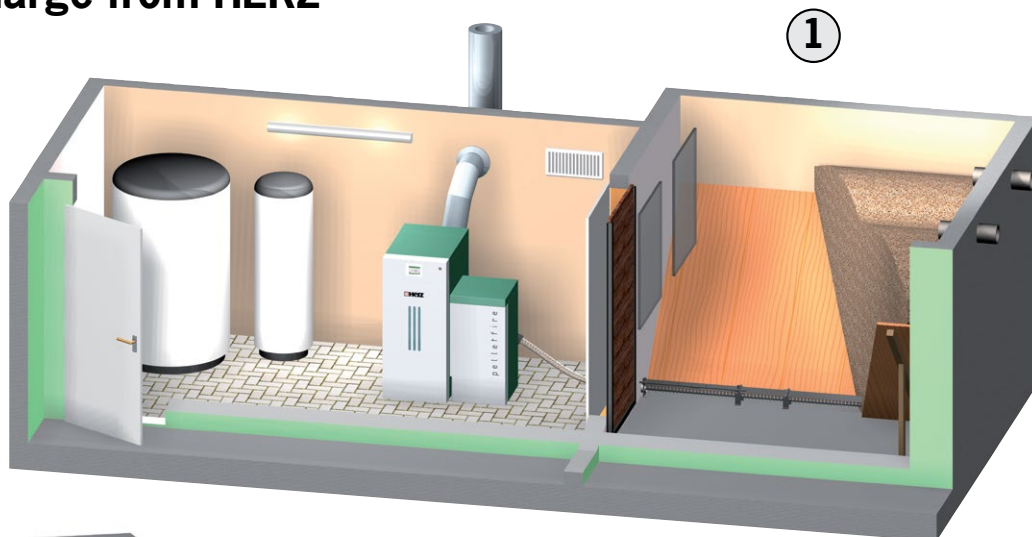
Remote access via myherz.at

For every room and space situation...

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.

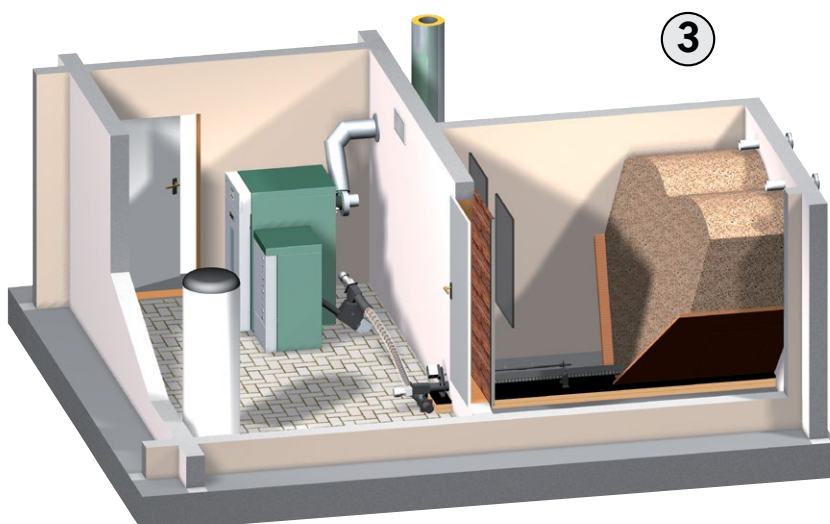
Flexible screw discharge from HERZ

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



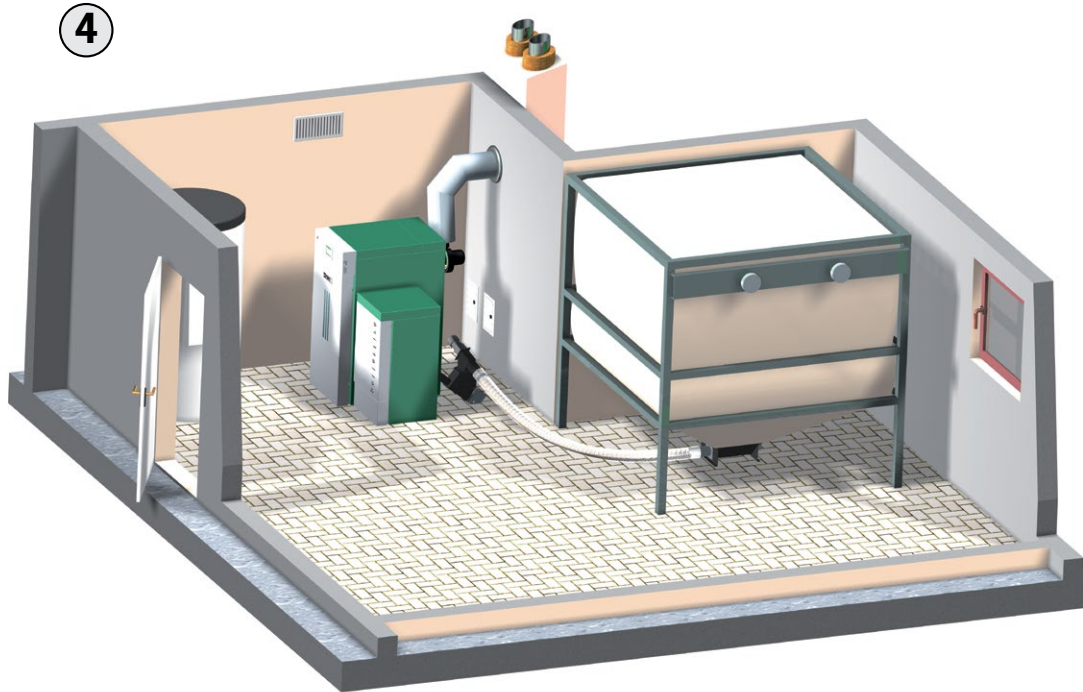
2 The storage room is located one floor higher than the boiler room or in the attic? This is no problem with the flexible screw discharge with chute pipe system!

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



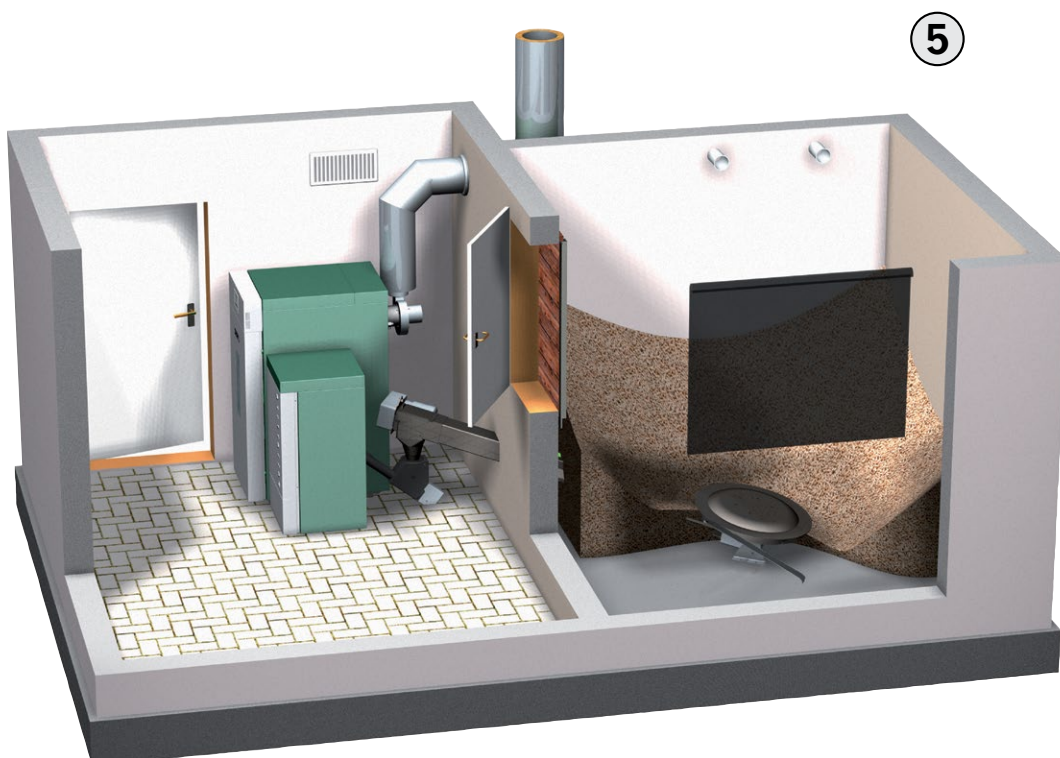
... the right discharge system

- 4 Room discharge with flexible screw from a bag silo. The bag silo can normally be placed into the boiler room and provides an optimal solution for small rooms.



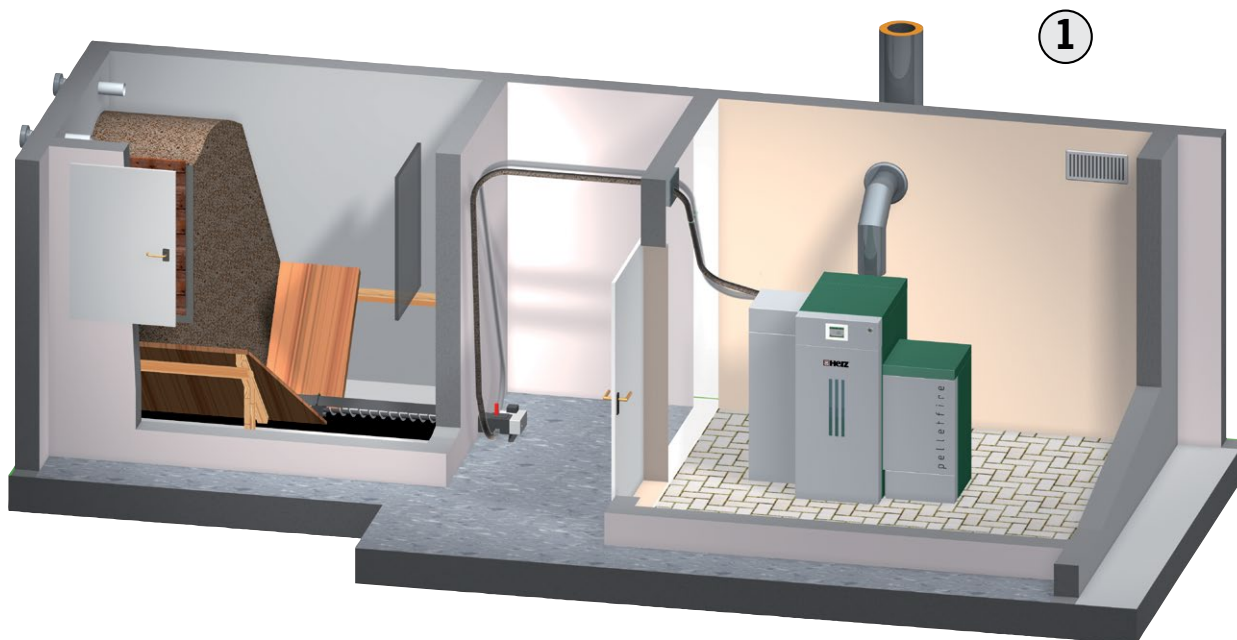
Agitator discharge system

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



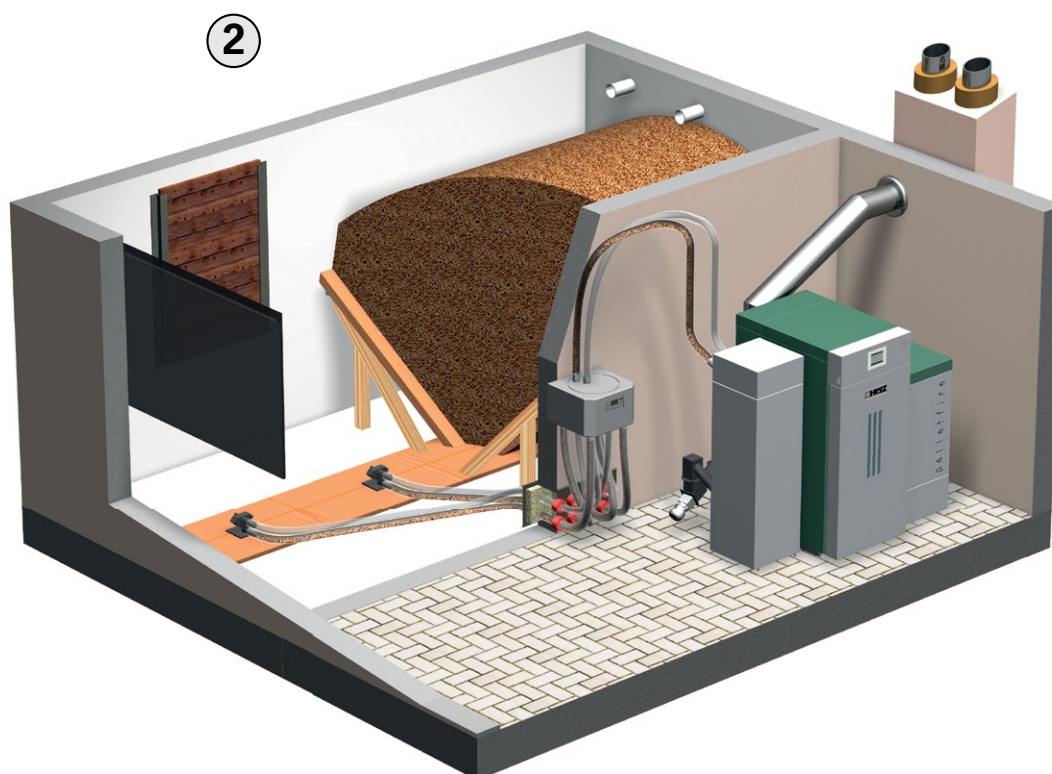
Suction systems from HERZ for longer distances to the boiler

- 1 Room discharge with a modular screw (in the storage room) in combination with suction system: Optimum emptying of the storage room and individual positioning of the boiler.

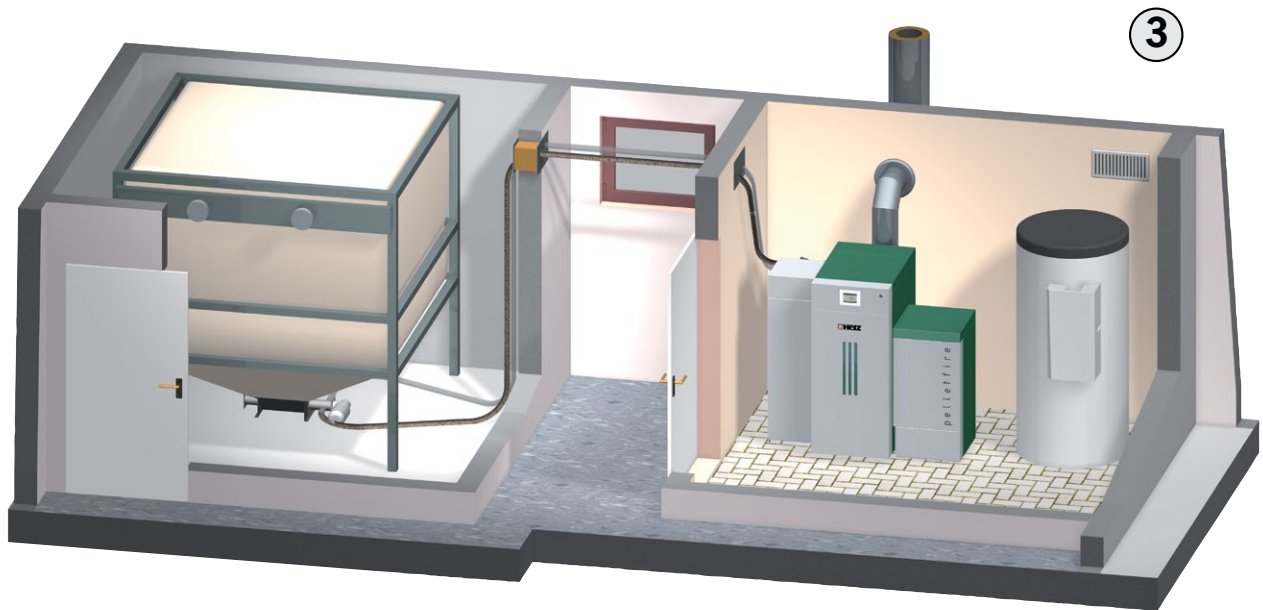


- 2 4-point suction system

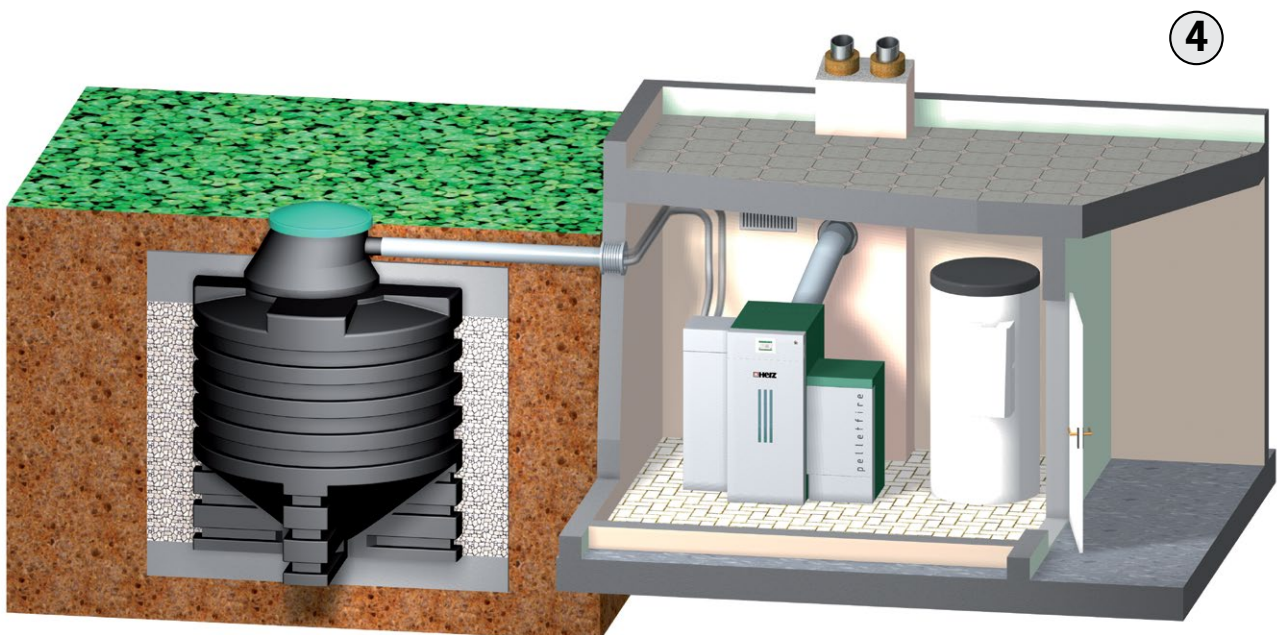
The position of the 4-suction points is individually selectable. The system can be installed easily and is an adaptable, universal solution to each storage room situation.



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).



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.



Fresh water module & buffer tanks

Useful supplementation for your heating system:

HERZ buffer tank

When using a buffer tank the generation of energy takes place over a longer period. As a result the number of boiler starts is reduced and the efficiency of the entire system increases. A buffer tank ensures a constant heat supply for different heating circuits (eg underfloor heating and radiators) and ensures optimum operating conditions.

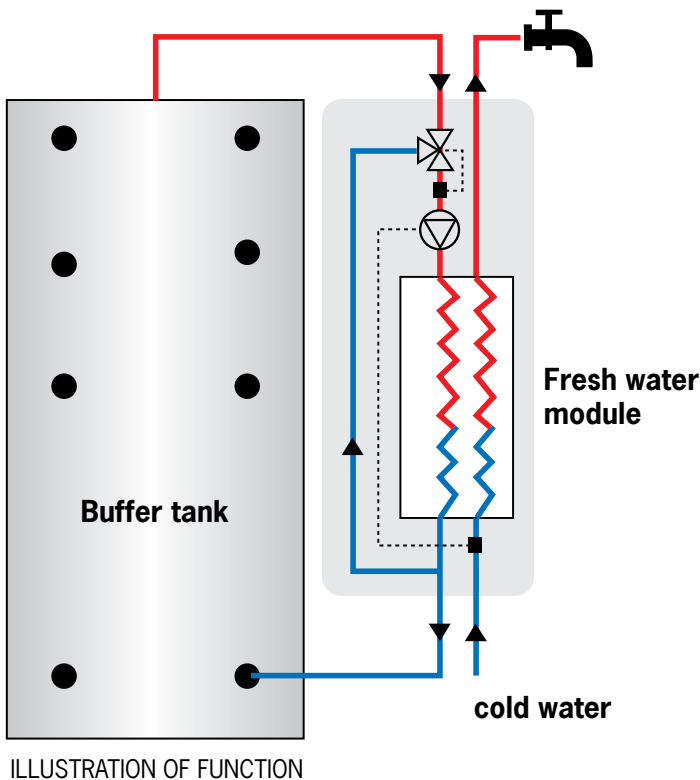
HERZ multifunctionstore

The tank has been specifically designed for use with heat pump and fresh water module. This ensures an optimal energy utilization. Specially fabricated components (stratification plates, inflow deflector plates, position of the nozzle etc.) and an intelligent construction characterize this high performance storage tank. Excellent part load and nominal load behavior is the result.



Fresh water module

Compact pre-mounted unit for hygienical warm water preparation. The fresh water module operates on the flow principle and ensures fresh domestic hot water and lowest standby losses. The circulation pump conveys the heating water through a temperature control unit through the 2-pass plate heat exchanger, which mixes the temperature of the buffer water in the inlet of the heat exchanger in a process so that the preset water temperature is reached. The buffer water is maximally cooled both in the inlet and outlet of the heat exchanger and thus excludes heat-related calcification.



The benefits:

- No warm water tank necessary - no storage of warm water!
- Only the amount of hot water which is used by the tap, is heated
- 100 % self-venting
- Easy assembly due to its compact design, minimal plumbing effort mounted directly on the wall
- Smallest construction
- Can be used in a variety of ways: detached and semi-detached houses, sports facilities, retirement homes, hotels, etc.

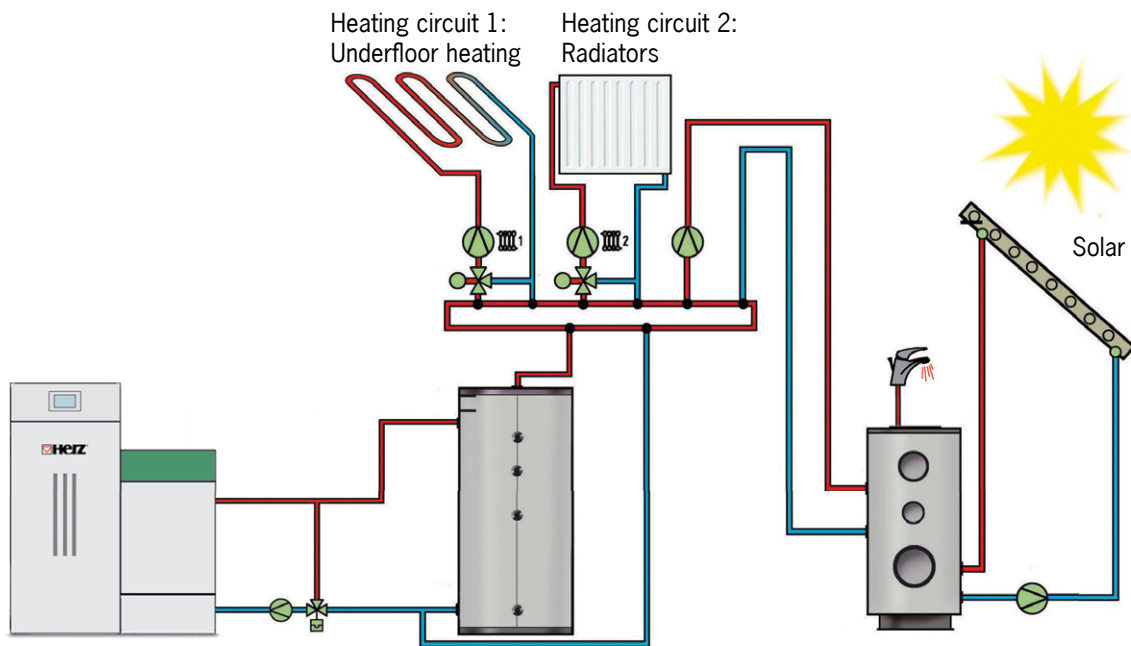
A range for all requirements

With HERZ T-CONTROL heating circuits, hot water tanks, buffers and solar can be controlled centrally from the boiler.

The control enables a multiplicity of application options, 2 of the most common cases are shown below.

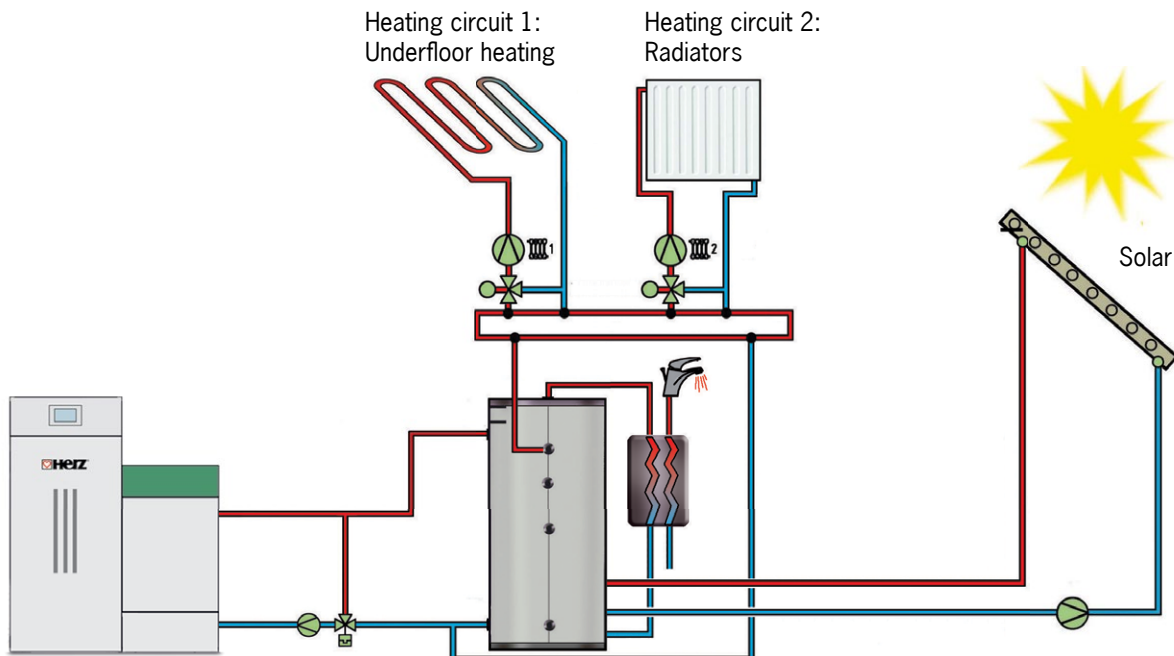
Hot water tank with solar usage and buffer tank:

With this system configuration solar energy is utilised to provide the domestic hot water. If there is not enough energy from the sun, heat is removed from the buffer tank and thus ensures the domestic hot water preparation. The different heating circuits (e.g. underfloor heating and radiators) are supplied with heat from the buffer tank.



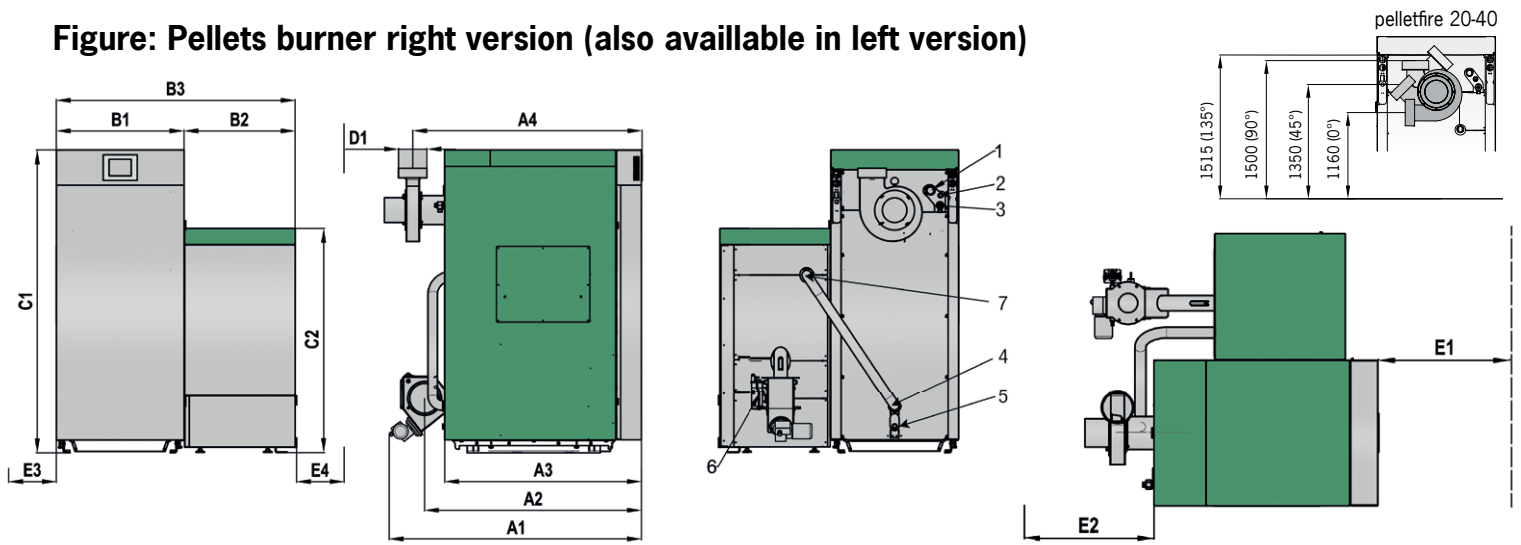
Solar heating support and domestic hot water preparation:

With this system configuration the solar energy heats the water in the buffer tank directly. Thus, free solar energy is also used for heating purposes. The domestic hot water module for hot water preparation heats the water in continuous flow mode with energy from the buffer tank. The different heating circuits are also supplied with the heat from the buffer.



Dimensions & technical data pelletfire 20-40

Figure: Pellets burner right version (also available in left version)



Technical data pelletfire	20/20		30/30		40/30	
	logs	wood pellets	logs	wood pellets	logs	wood pellets
Power 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
Dimensions (mm)						
A1 Length - total		1327		1327		1327
A2 Length boiler plus distance to BFP centre line		1141		1141		1141
A3 Length - casing		1035		1035		1035
A4 Length boiler plus distance to flue pipe centre line		1202		1202		1202
B1 Width		670		670		670
B2 Width		584		584		584
B3 Width		1254		1254		1254
C1 Height		1593		1593		1593
C2 Height		1179		1179		1179
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

Technical data							
Boiler weight	kg	622	183	622	183	622	183
Combustion efficiency η_f	%	>93	>93	>93	>93	>93	>93
Permissible operating pressure	bar	3,0	3,0	3,0	3,0	3,0	3,0
Max. permissible flow temperature	°C	95	95	95	95	95	95
Water capacity	ltr.	108	29	108	29	108	29

1 flow connection		5/4" IT	5/4" IT	5/4" IT	5/4" IT	5/4" IT	5/4" IT
2 Sensor sleeve		1/2" IT	1/2" IT	1/2" IT	1/2" IT	1/2" IT	1/2" IT
3 safety heat exchanger		1/2" ET	1/2" ET	1/2" ET	1/2" ET	1/2" ET	1/2" ET
4 & 7 Bypass		5/4" IT	5/4" IT	5/4" IT	5/4" IT	5/4" IT	5/4" IT
5 Filling/emptying		1/2" IT	1/2" IT	1/2" IT	1/2" IT	1/2" IT	1/2" IT
6 return flow connection		5/4" IT	5/4" IT	5/4" IT	5/4" IT	5/4" IT	5/4" IT

Minimum ceiling heights*							
Turbulators not splitted			2200		2200		2200
Turbulators 1-time splitted			1900		1900		1900

Values at nominal load							
Flue gas temperature	°C	~140	~120	~160	~150	~170	~150
Flue gas mass flow	kg/s	0,013	0,013	0,019	0,019	0,025	0,019
CO ₂ content	Vol. %	15,4	12,37	15,4	12,74	15,6	12,74

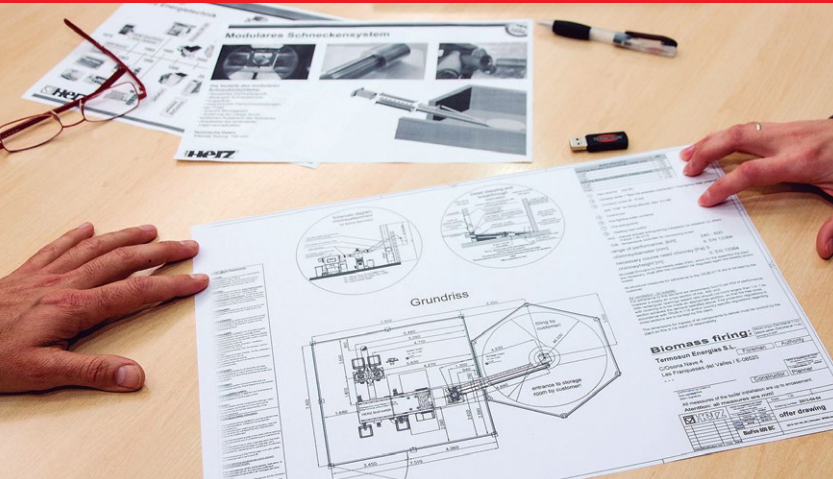
Values at part load							
Flue gas temperature	°C	~100	~85	~100	~85	~100	~85
Flue gas mass flow	kg/s	0,0068	0,0050	0,0068	0,0050	0,0068	0,0050
CO ₂ content	Vol. %	13,9	9,54	13,9	9,54	13,9	9,54

Energy labelling					
Combination boiler		A+		A+	A+
Combination boiler with integrated system controller		A+		A+	A+

* Please note: In order to be able to carry out proper maintenance, at least 600 mm above the boiler must be available for non-split turbulators & with single-section split turbulators at least 300 mm above the boiler!

We reserve the right of error and technical modifications!

HERZ customer-oriented...



- Advising in planning phase
- Planning of discharge system according to customer requirements and local conditions
- area covered service
- HERZ training:
 - for operators
 - for planners, technical departments
 - for plumbers
 - as well as continuous training of the maintenance staff



We reserve the right of errors, misprint, typographical failures and technical modifications! Data about our products are not guaranteed characteristics. Mentioned and illustrated discharge systems are system-dependent and only available as an option. In case of discrepancies between documents with regard to the scope of supply the information in the current offer is valid. All images are representations as a symbol and serve only to illustrate our products.

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HERZ biomass boilers underbid the strictest emission regulations.

