



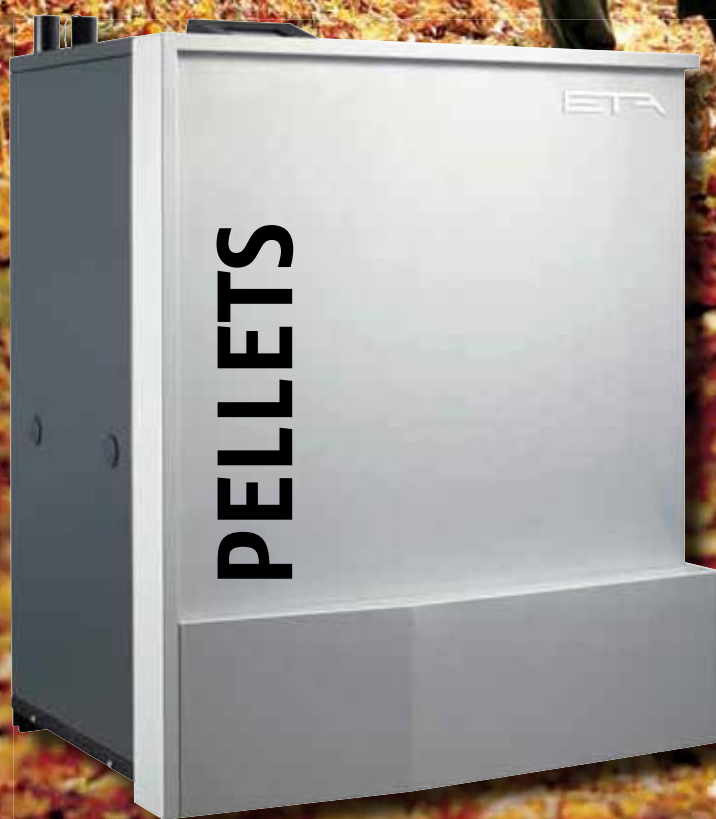
*...mein Heizsystem*

## *PelletsCompact*

### *ETA PC*

*The small "large"  
pellet boiler.*

*20, 25 and 32 kW*



*A passion for perfection.*

[www.eta.co.at](http://www.eta.co.at)

# ETA PC PelletsCompact 20, 25 and 32 kW

## The ETA PelletsCompact is a space-saving wonder

Thanks to the way it is designed, the Pellets-Compact would not look out of place in a living room and it can be positioned directly against the wall. As a result, you can free up valuable space in your utility room to be used for other purposes.

The pellet store does not require any more space than an oil tank and can be situated up to 20 m from the boiler.

Virtually every house offers sufficient space for such a heating system, making the PelletsCompact the ideal choice for the renovation of your heating system.

## Complete control with ETAtouch

Enjoy full control over your heating system on a 5.7" (14.5 cm) touchscreen. The self-explanatory images make operation a breeze, with "warmer" or "colder" just a few taps away.

For example, each heating circuit screen features this button:



It takes you to a menu screen in which you can enter the start and end of your holiday. The heating circuit then switches to set back mode while you are on holiday and reactivates shortly before you return.



## Internet-based remote control via smartphone or computer

If you have connected your boiler to the Internet and you own a touchscreen smartphone, you can access the boiler touchscreen on your phone. You'll no longer be asking yourself that age old question, "did I remember to switch off the heating?" You can use your mobile phone to remotely switch the heating circuits to set back mode and reactivate them before you return. Never again will you come back to a cold home after your winter holidays. You can also remote control your heating system throughout your home using your smartphone – or an iPad, an iPod... or even your computer. All that is required is a network-compatible touchscreen smartphone equipped with the operating system Android (HTC) or iOS (Apple), and a wireless internet connection in your home. You can access ETAtouch on your computer using any browser that supports HTML 5; this currently includes Mozilla Firefox, Safari, Google Chrome and Internet Explorer 9.





## External air supply for use in the heated part of house

In most countries, there are no special boiler room requirements for devices below 35 kW. The boiler can thus be installed in a utility room, storage room, hobby room or cellar bar. The ETA PC is ideally equipped for such dual room usage. As it has an external air supply and does not rely on the surrounding air, it can be positioned in the heated part of the house and within a living space with controlled ventilation.

Due to the variation between different building regulations, we ask that you contact the relevant building authorities in advance.



## Fully equipped

Every ETA pellet boiler features a lambda probe, automatic cleaning and a complete control system as standard. This minimises the emissions of your ETA PelletsCompact while ensuring maximum day-to-day efficiency throughout the entire heating season. As a complete solution,

your entire heating system, including the buffer tank, heating circuits and solar heating system can be integrated into the boiler control system. This ensures that the power generated from the sun always takes priority over that from your boiler.

## Clean solution

A clean boiler will provide better fuel efficiency. The fully automated cleaning of the ETA PelletsCompact includes heat exchanger cleaning and ash removal. The ash container only needs to be emptied two or three times a year. Once emptied, it can be quickly and easily stored away again inside the PelletsCompact – a space-saving and, above all, very clean solution.



## ETA – convenient wood heating

Everyone loves a log fire – be it a romantic camp-fire or a wonderful tiled stove in the living room. But who would want to heat their entire house with wood? What about the constant trips to the cellar to add more fuel? Of course, there is a solution to this problem: heating with pellets.

A modern pellet boiler is just as effective as an oil or gas boiler, providing heat at the touch of a button.

### The difference is in the fuel supply

Every year, more and more oil is being turned into plastic – think of the bodies of our cars, for example, or the pipework in our homes. In the face of this new demand, supplies of oil and liquid gas, which is also a petroleum product, are dwindling while prices are on the up. Wood represents a carbon-neutral solution, allowing us to work in perfect harmony with the cycles of nature. Thanks to the power of the sun, the carbon dioxide produced by burning wood is used to regrow trees in the forest.

### Why use a buffer storage tank?

While the PelletsCompact functions perfectly without a buffer storage tank, it can open up a whole new world of saving on fuel. It stores the entire boiler output and provides your home supply and your water heating with the exact amount of required heat. A buffer is particularly useful in autumn or spring, when heating requirements are very small, or at those times in the summer months, when no solar heating system is available to service the hot water tank (boiler). This prevents unnecessary boiler ignitions and ultimately saves a great deal of fuel.

### Harness the power of the sun with increased winter usage

In the winter, the solar panel struggles to reach the 60° required for the water heating. In Winter, the utilisation of the solar panel is significantly increased by using it for underfloor heating, which requires lower temperatures. If the heating circuits and solar panel are connected directly to the buffer, the sun's power can be integrated directly into the underfloor heating in the lower half of the tank. When no heating is required in the summer, the temperature rises and the sun can be used for the hot water supply. A combination of an 800-litre buffer and 8–12 m<sup>2</sup> of solar panelling is a tried-and-tested solution for a single-family home.



## Hygienic hot water supply

Leaving hot water unused in the tank for extended periods promotes the growth of germs and bacteria. In the fresh water module, a heat exchanger is used to produce hygienic hot water as and when it's required. The conventional hot water tank can be replaced with a buffer equipped with a fresh water module – the additional space requirements amount to no more than 0.5 square metres.

## Complete control system

Regardless of the age of the building, energy saving is only possible with excellent insulation and a state-of-the-art control system. The PelletsCompact is therefore equipped with complete controls for the entire heating system. This includes radiators, underfloor heating, buffer management, water heating (tank or fresh water) and solar heating system.

## Simple touchscreen operation

ETAtouch enables simple adjustment and switching by means of self-explanatory images, so you can do more than ever before. With just a few taps of your finger you can check the fill level of the buffer tank and the functioning of the solar heating system.

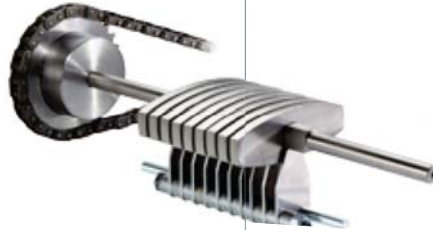
The buffer storage tank and/or water heating don't have to be situated in the boiler room. They can be installed at a separate location, ideally as close as possible to the hot water outlets so that the hot water can flow from the taps immediately without the need for circulation.



## ETA technology

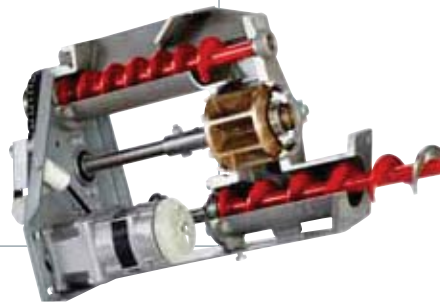
### A Always clean thanks to patented rotating grate

The system performs a cleaning process after every 25 to 45 kg of pellets. The grate is rotated through a comb in order to remove ash and slag from the air gaps. During combustion, the firebed is stoked by gentle grate movements, thus ensuring ideal burnout with minimum ash production. All the ash from the boiler is transported into a removable ash box.



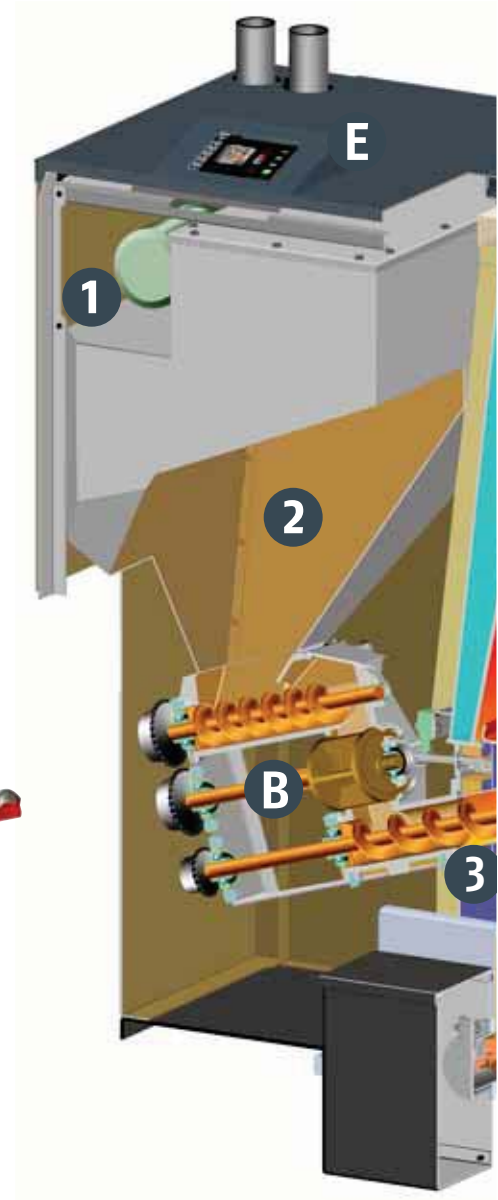
### B Rotary valve for safety

The ETA rotary valve ensures absolute burn-back protection. A metering screw feeds the pellets from the bin into the rotary wheel. This avoids the need for pellet cutting while preventing wear to the sealing edges. The burn-back protection is thus maintained throughout the entire service life of the boiler.



### C Reliable underpressure with induced draught fan

A quiet, speed-controlled draught fan (just 57 W) with feedback function ensures constant underpressure and thus high operating reliability, independent of the flue draught. No draught limiter is required for flue draughts of up to 15 Pa.

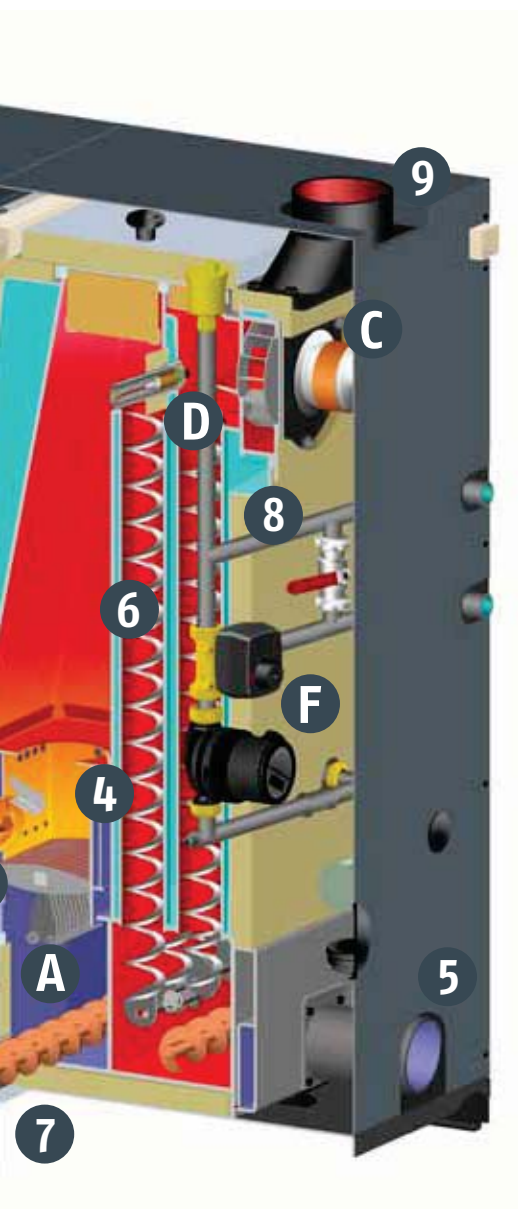


- 1 Suction turbine for pellet transport**  
from the storeroom to the pellet bin on the boiler via flexible DN50 hoses and across distances of up to 20 m

- 2 Day bin for pellets**  
with 60 kg pellet storage reduces the duration of pellet feeding to one or two ten minute feeds per day. You can also set the preferred time of transport.

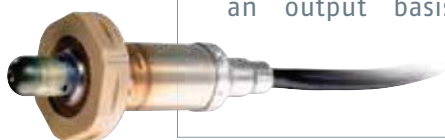
- 3 Automatic ignition**  
with noiseless ceramic incandescent body
- 4 Hot, stainless steel combustion chamber**  
minimises emissions, even under partial load
- 5 Air connection**  
external air supply with optional intake of expelled combustion air (NW 100 pipe, insulated against condensation)





### D Optimum fuel efficiency with lambda probe

A lambda probe is fitted to the ETA PC as standard to ensure clean combustion and maximum efficiency. The probe is used by the control system to optimise the air supply on an output basis. The different burnout behaviour of varying pellet qualities is also compensated.



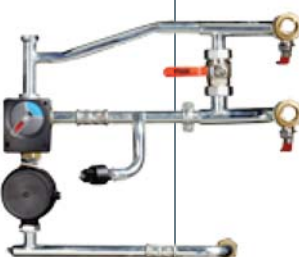
### E Complete control over your heating system

Furnace control, pellet feeding, buffer management, water heating (tank or fresh water), weatherbased heating circuit control with weekly programme for two circuits, solar heating system, active monitoring of all functions and drives, water shortage switch-off, LAN connection for remote control via Internet (PC, SmartTV or smartphone) and USB connection.



### F Controlled return riser with high-efficiency pump

The PelletsCompact is ready for buffer operation thanks to its mixing-valve-controlled return riser. It goes without saying that the fitted pump is speed-controlled, highly efficient and energy-saving (15 to max. 35 W). With its connectable hydraulic bypass, it can also be integrated into buffer-less systems and can handle any amount of water circulation, no matter how large or small. This makes the PelletsCompact an ideal replacement boiler.



### 6 Automatic cleaning

Heat exchanger cleaned automatically by means of agitated turbulators

### 7 Automatic ash removal

The ash is compressed into a removable ash box. Thanks to its 24-litre capacity, the box only needs to be emptied two to three times per heating season

### 8 Integrated safety valves

The boiler safety valve, a pressure measurement function with water shortage switch-off and air vent at the boiler flow are already fitted and ready for operation. Due to the minimal fuel volume inside the boiler, no thermal emergency cooling valve is required

### 9 Exhaust temperature sensor for active monitoring

# Systematic fuel storage and transport

## Flexible pneumatic conveyor enables large distances between boiler and storeroom

All ETA storeroom concepts are combined with an individually adaptable, suction-based transport system from the pellet store to the boiler via flexible hoses. The suction turbine integrated in the boiler can easily manage distances of up to 20 metres or height differences of up to two floors. A 60 kg pellet bin reduces the duration of pellet transport to one or two ten minute feeds per day. You can also set the preferred time of transport in the control system.

### Usable cross-section of pellet storeroom in square metres

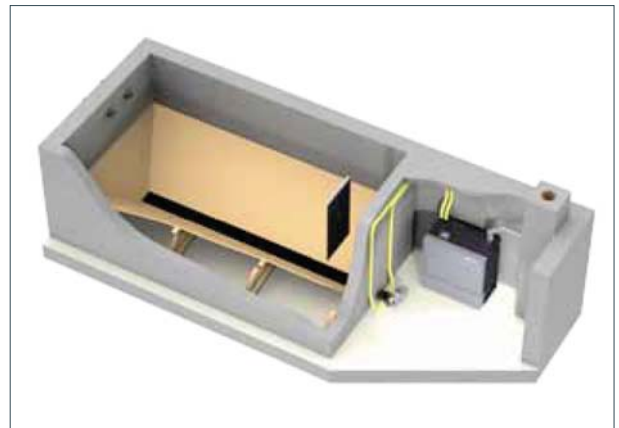
40° diagonal sheathing, upper clearance of 0.40 m

Width of storeroom in metres	Height of storeroom in metres								
	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6
2.0	2.10	2.50	2.90	3.30	3.70	4.10	4.50	4.90	5.30
2.4	2.32	2.80	3.28	3.76	4.24	4.72	5.20	5.68	6.16
2.8	2.47	3.03	3.59	4.15	4.71	5.27	5.83	6.39	6.95
3.2		3.20	3.84	4.48	5.12	5.76	6.40	7.04	7.68
3.6				4.73	5.45	6.17	6.89	7.61	8.33
4.0						6.52	7.32	8.12	8.92

Cross-section x room length (screw axis) = storage volume  
Storage volume x 0.650 to/m<sup>3</sup> = pellet storage in tons

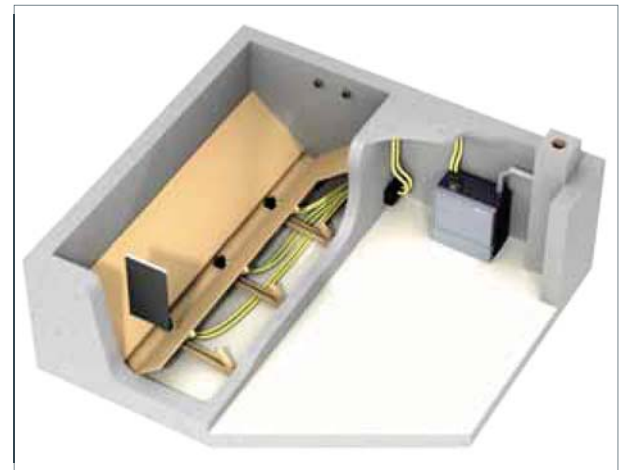
## Storeroom with discharge screw

Our standard solution features a discharge screw, which offers two main advantages: reliable discharge and complete emptying. Thanks to the modular ETA screw systems (up to 5 m discharge length), any existing room can be converted into an ideal pellet store – even an oil tank room.



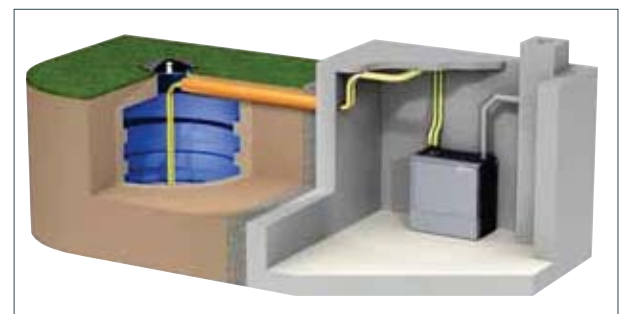
## Storeroom with pneumatic discharge conveyor

If the installation of a discharge screw is problematic due to the room's lateral position, we offer an ideal solution in the form of a pneumatic discharge system with up to three suction probes. The probes are combined into a single system by means of an automatic changeover unit mounted in the wall passage. The probes are connected to the changeover unit by flexible hoses, allowing the suction points to be adapted to the conditions of the room.



## Storage in an underground tank outside of the house

If there is no space for a storeroom inside the house, an external underground tank can be used. These are available on the market as underground pellet tanks with lance or mole removal and are compatible with our pneumatic conveyor system.





## Storage in ETABox

If a sufficiently dimensioned installation space is available (observe the relevant legislation in your state), we recommend the use of our ETABox bag silo system. This offers a major advantage in that it is flood-proof. The storage room will not burst due to water-swollen pellets. The ETABox is suitable for outside installation if adequate weather and UV protection is provided.



### The ETABox enables the optimum space utilisation

	Surface area	Height	Volume
ETABox 17	1.7 x 1.7 m	1.8 to 2.5 m	2.0 to 3.2 t
ETABox 21	2.1 x 2.1 m	1.8 to 2.5 m	2.8 to 4.7 t
ETABox 17/29	1.7 x 2.9 m	1.9 to 2.5 m	3.3 to 5.2 t
ETABox 21/29	2.1 x 2.9 m	1.9 to 2.5 m	4.0 to 6.4 t
ETABox 25	2.5 x 2.5 m	1.8 to 2.5 m	3.9 to 6.7 t
ETABox 29	2.9 x 2.9 m	1.9 to 2.5 m	5.5 to 8.8 t

Height-adjustable in  
100 mm intervals

## Heating value and density of pellets

Heating value of pellets = 4.9 kWh/kg

Density of pellets = 650 kg/m<sup>3</sup>

## Formula for calculating pellet volume

As a rule of thumb, the required pellet volume in tons is calculated by dividing the heating load by a factor 3, or by a factor of 2 if calculating the volume in cubic metres. Below is an example for a 24 kW of heat required:

24 kW / 3 = 8 tons of pellets per year

24 kW / 2 = 12 cubic metres per year

## More precise method based on current fuel consumption

Below is an example for a house with 24 kW of heat required:

3920 l heating oil x 2.04 = 8000 kg pellets

4120 m<sup>3</sup> natural gas x 1.94 = 8000 kg pellets

5790 l liquid gas x 1.35 = 8000 kg pellets

3070 kg liquid gas x 2.56 = 8000 kg pellets

4870 kg coke x 1.64 = 8000 kg pellets

31 m<sup>3</sup> softwood logs x 258 = 8000 kg pellets

22 m<sup>3</sup> hardwood logs x 363 = 8000 kg pellets

Geothermal heat pump with figure of merit 3.5

11,200 kWh electricity x 0.71 = 8000 kg pellets

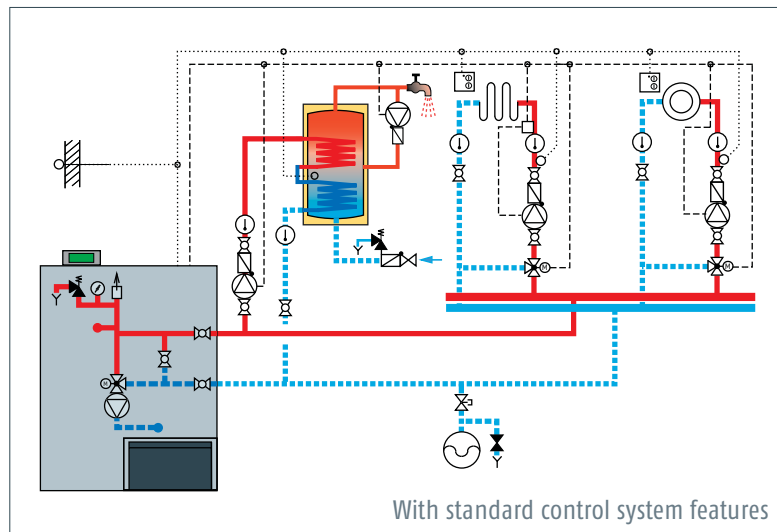
# ETAtouch – everything under control

11

The standard features of the ETAtouch control system include all necessary functions for two heating circuits, water heating (tank or fresh water) and a solar heating system. An integrated LAN connection for remote control via the Internet or a network is also provided.

## Standard features of control system

- 11 Output regulation with speed-controlled draught fan based on boiler, accumulator and flue gas temperatures
- 11 Combustion regulation with lambda-controlled fuel adaptation
- 11 Continuous monitoring of operating state, incl. lambda and exhaust temperature, boiler and tank temperatures, return riser, drive motor current monitoring, reporting of induced draught speed, reporting of position of rotating grate, reporting of firebed status, fuel level and water pressure; plain text notification of faults and troubleshooting instructions
- 11 Automatic ignition with lambda-controlled ignition time reduction
- 11 Speed-controlled buffer pump with output management
- 11 Return riser via mixing valve
- 11 Two weather-based heating circuit pumps with weekly programme, three daily time slots, come-and-go function, holiday reduced mode; optionally expandable with room sensors and remote control

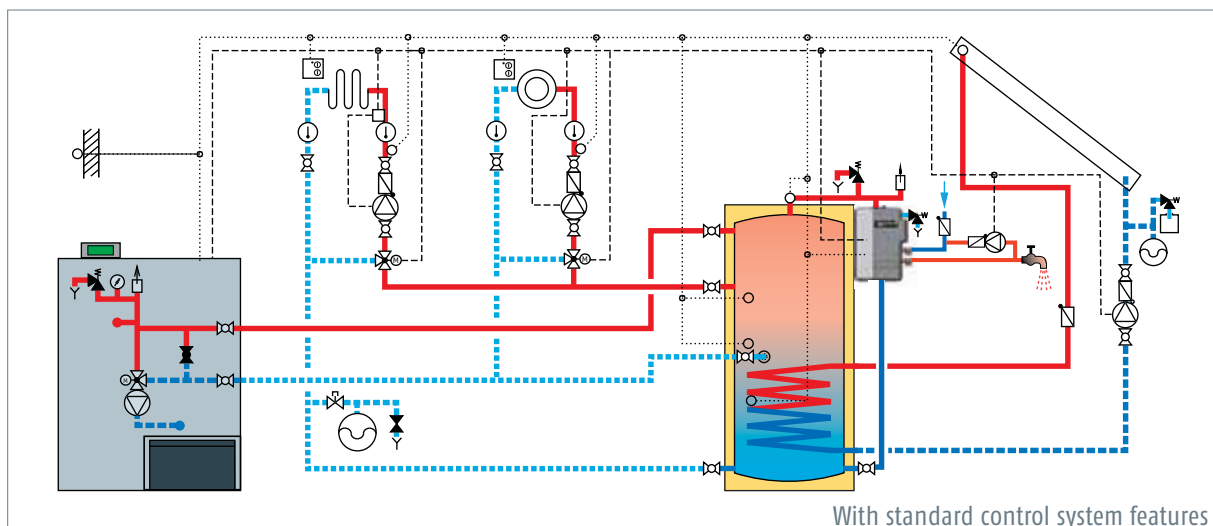


- 11 Water heating with tank, fresh water module or internal water heat exchanger in a buffer with a weekly programme
- 11 Hot water circulation pump with time programme or, in case of fresh water module, start with brief opening of tap
- 11 Simple solar heating system with pump and solar heat flow meter
- 11 Peak-load management or control for multiple pellet boilers
- 11 If external heat is supplied, the boiler can be turned off and consumers switched to the external heat source
- 11 Freely configurable thermostat or differential temperature thermostat, e.g. for second hot water tank
- 11 Display of up to five freely selectable temperatures

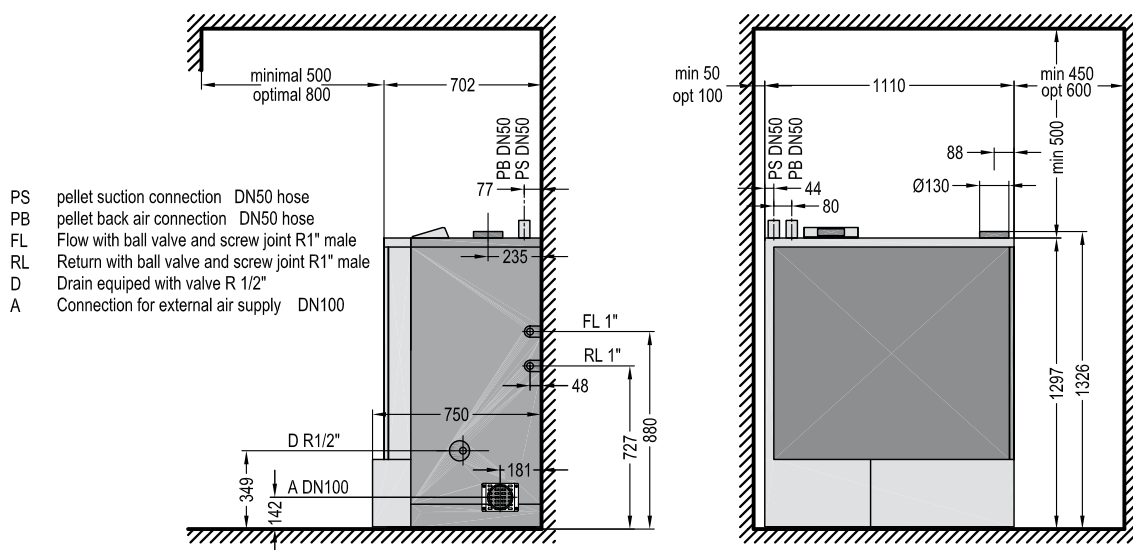
- 11 LAN connection for remote control via Internet
- 11 USB connection

## Optional addition of wall box

- 11 Two additional heating circuits
- 11 External heat demand with constant boiler flow temperature
- 11 Complex solar heating systems with stratified charging or two tanks
- 11 Pump for transmission line (or external consumers) with/without mixing valve



## ETA PC PelletsCompact 20, 25 and 32 kW



### Technical data for ETA PC PelletsCompact

		20	25	32
Rated capacity	kW	6.0–20.0	7.3–25.0	7.3–32.0
Boiler efficiency, partial/full load*	%	91.8 / 94.8	92.2 / 95.2	92.2 / 94.5
Boiler dimensions, W x D x H	mm	1110 x 750 x 1297		
Weight	kg	347		
Water content	l	54		
Residual pump head $\Delta T = 7^{\circ}\text{C}$		3.1 mWS 0.86 m <sup>3</sup> /h	2.8 mWS 1.08 m <sup>3</sup> /h	1.8 mWS 1.38 m <sup>3</sup> /h
Resistance at $\Delta T = 20^{\circ}\text{C}$ over internal hydraulic bypass	Pa / mWS	530 / 0.053	840 / 0.084	1340 / 0.134
Pellet bin on boiler (net)		60 kg (294 kWh)		
Maximum distance of boiler pellet store	m	20		
Ash box	l	24		
Flue gas mass flow rate, partial/full load	g/s	4.7 / 12.1	5.5 / 14.5	5.5 / 18.7
CO <sub>2</sub> content in dry flue gas, partial/full load	%	10 / 13	10.5 / 13.5	10.5 / 13.5
Exhaust temperature, partial/full load*	°C	90 / 130	95 / 135	95 / 140
Flue draught		1 Pa for partial load / 3 Pa for full load required. No draught limiter required up to 15 Pa		
Carbon monoxide (CO) emissions	Partial/full load*	mg/MJ mg/m <sup>3</sup> 13%O <sub>2</sub>	16 / 5 25 / 7	14 / 5 21 / 7
Dust emissions	Partial/full load*	mg/MJ mg/m <sup>3</sup> 13%O <sub>2</sub>	8 / 6 13 / 10	6 / 3 10 / 5
Unburned hydrocarbons (CxHy)	Partial/full load*	mg/MJ mg/m <sup>3</sup> 13%O <sub>2</sub>	<1 / <1 1 / <1	<1 / <1 1 / <1
Electrical power consumption	Partial/full load*	W	56 / 90	60 / 101
With buffer-less operation, the hot water tank must have a min. capacity of 300 litres and a min. heating register of 1.5 m <sup>2</sup> .				
Max. permissible operating pressure	3 bar	Boiler rating	3 acc. to EN 303-5	
Temperature adjustment range	30–85°C	Tested fuel	Pellets ÖNORM M7135, DIN 51731, DIN plus, EN 14961-2, ENplus A1	
Max. permissible operating temperature	95°C	Electrical connection	1 x 230 V / 50 Hz / 13 A	

\* Data from test reports of BLT Wieselburg, log numbers 021/h0, 022/h0. The test reports of BLT Wieselburg can be found on the Internet at: [blt.josephinum.at](http://blt.josephinum.at) (Test reports > Biomass boiler tests > Pellets heating boilers)



Conforms to  
EU standards



BLT  
Wieselburg Austria



TÜV South Germany



Der Blaue Engel



Quality seal of  
Holzenergie Schweiz



Österreichisches  
Umweltzeichen



Listed on the  
Energy Technology List



The Certification Mark for Onsite  
Sustainable Energy Technologies





ETA PU PelletsUnit 7 to 15 kW  
(7, 11 and 15 kW)



ETA PC PelletsCompact 20 to 32 kW  
(20, 25 and 32 kW)



ETA PE-K pellet boiler 35 to 90 kW  
(35, 50, 70 and 90 kW)



ETA SH wood gasification boiler 20 to 60 kW  
(20, 30, 40, 50 and 60 kW)



ETA SH-P wood gasification boiler  
20 and 30 kW  
with ETA TWIN pellet burner 20 and 26 kW



ETA HACK wood chip boiler 20 to 130 kW  
(20, 25, 35, 50, 70, 90 and 130 kW)



ETA HACK wood chip boiler 200 kW



ETA stratified buffer SP and SPS  
(825, 1.000, 1.100, 1.650 and 2.200 litres)



ETA stratified buffer SP and SPS  
with fresh water and stratified  
charging module

Your heating specialist will be happy to advise you:



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