

Central heating solid-fuel boiler with a cooking plate
TEMY ES 10-15-25
Technical manual for use and maintenance



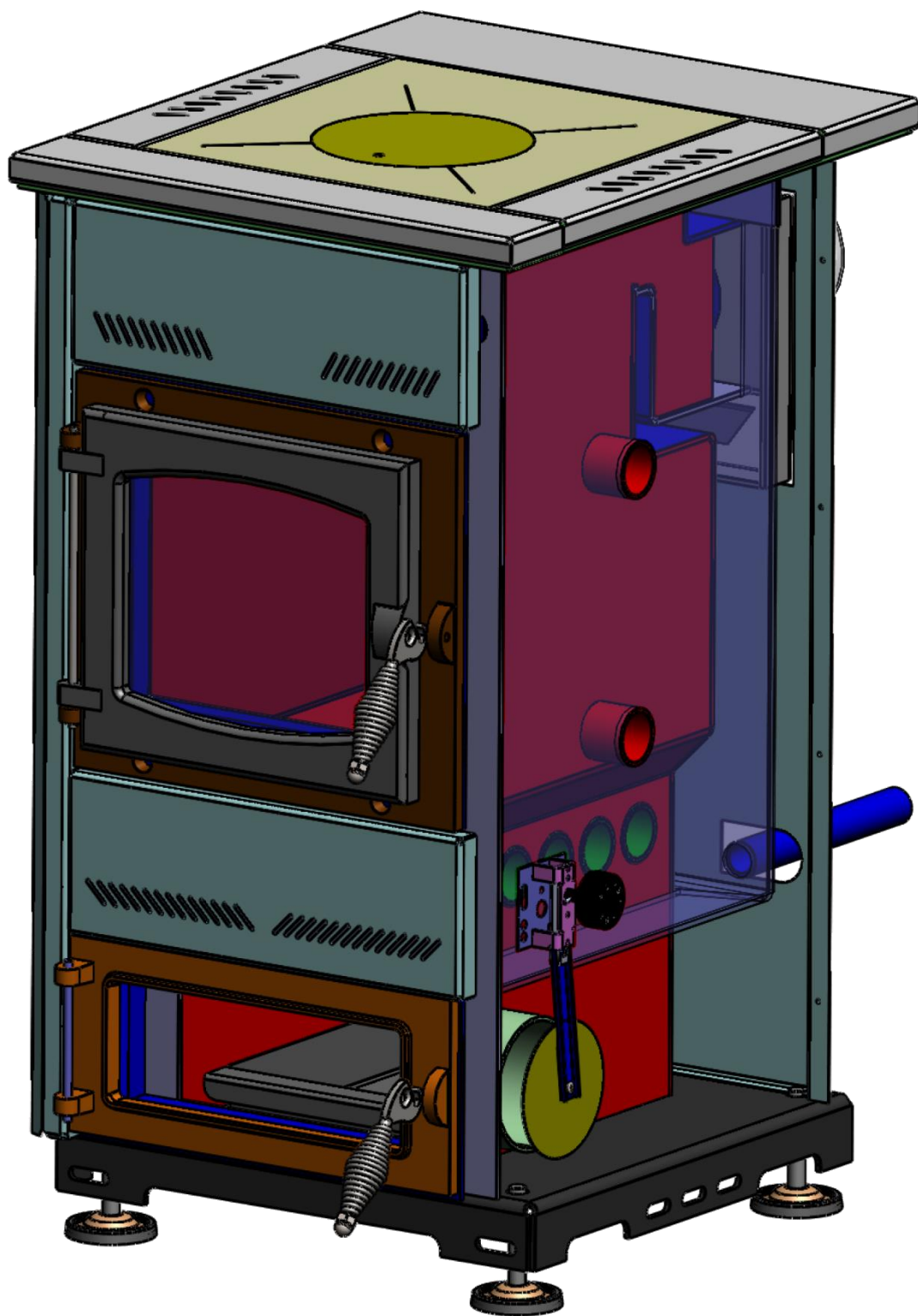
Prhovačka bb, 22310 Šimanovci, Serbia,
Tél / Fax. +381 22 480404 +381 63 259422
podrska@termomont.rs www.termomont.rs

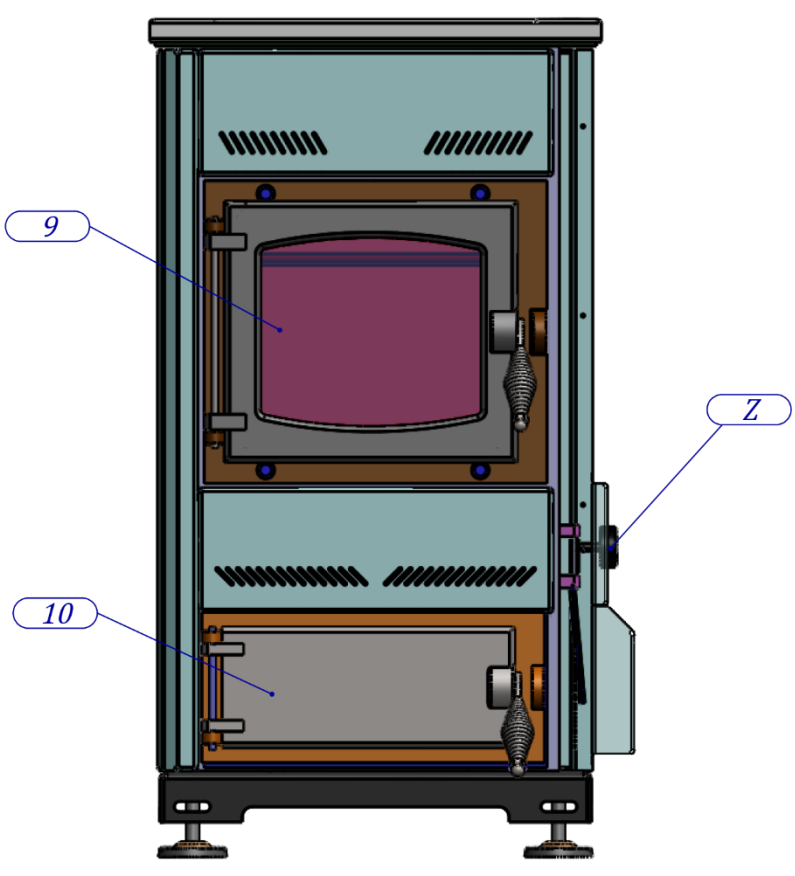
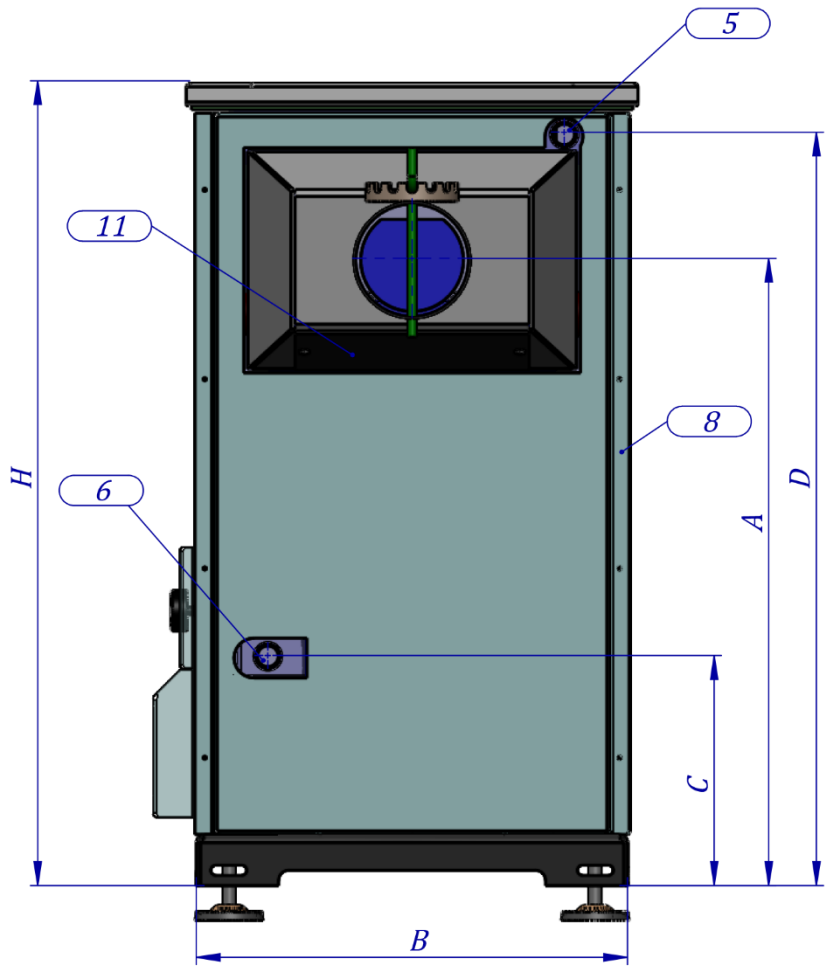
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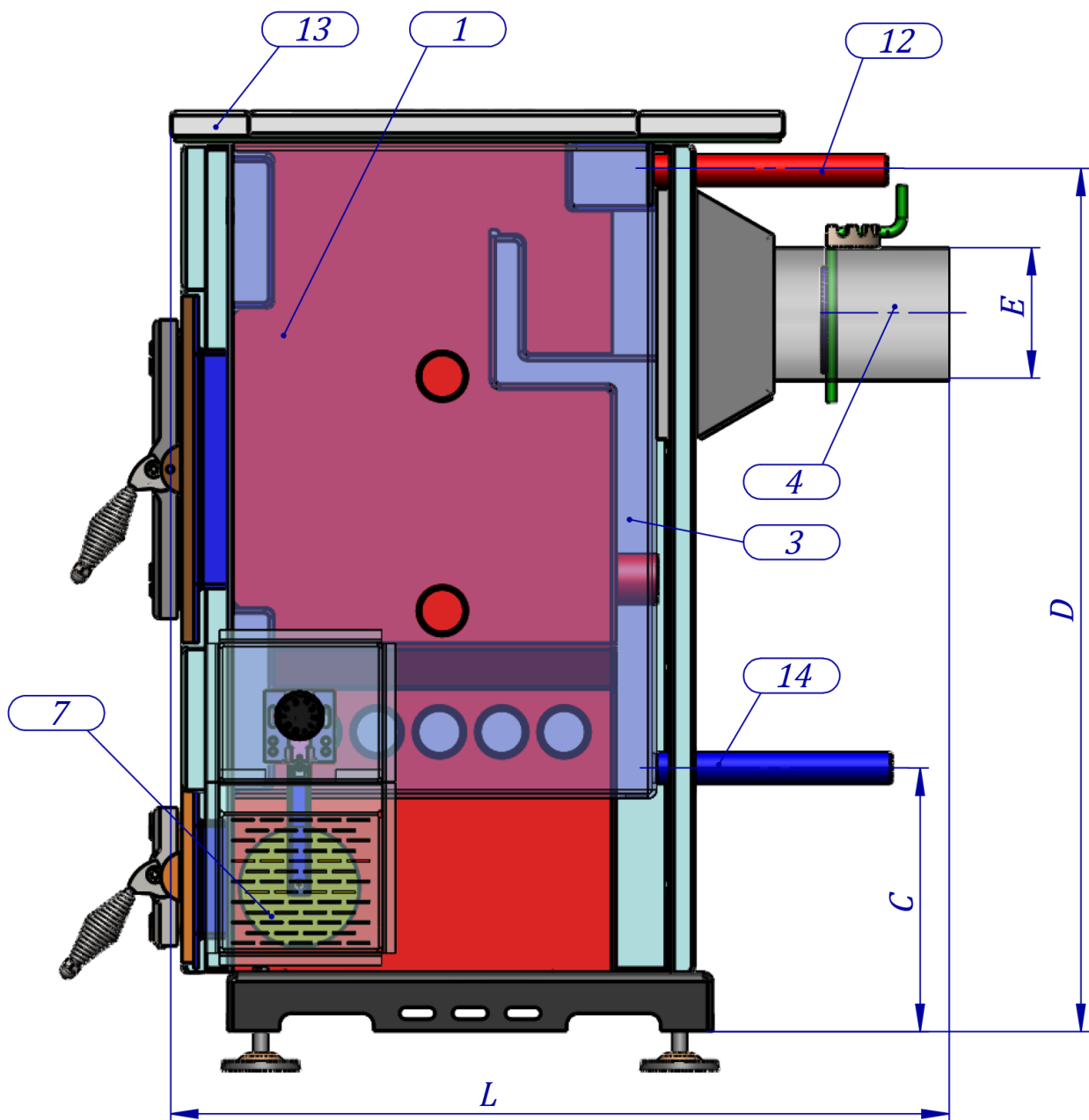
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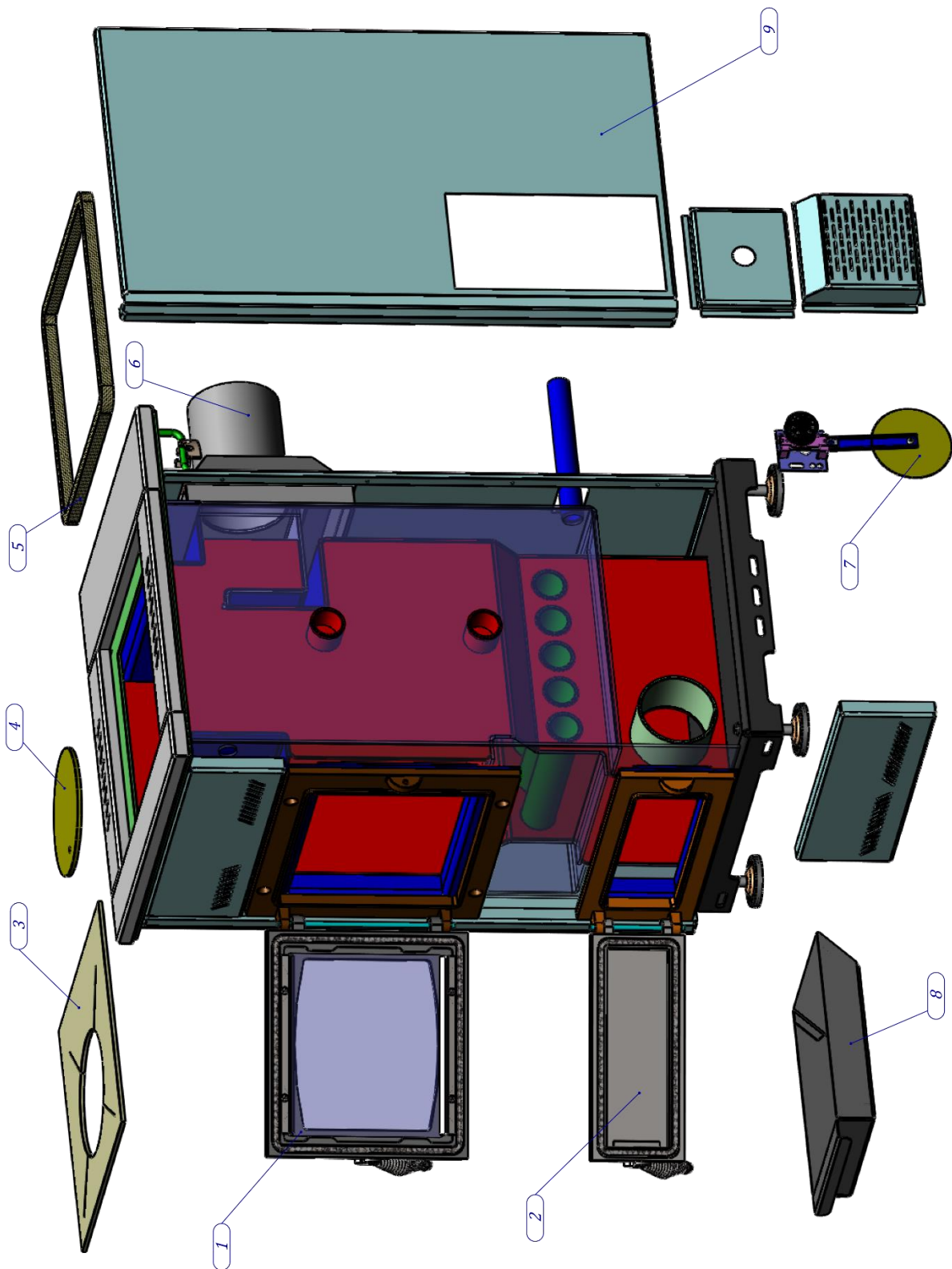
1 General product data







Boiler part description: 1. Heating chamber 2. Heat-exchanger tubes 3. Boiler (hot-water) 4. Flue 5. Flow line 6. Return line 7. Draught regulator 8. Boiler housing without insulation 9. Upper boiler door (cast-iron) 10. Lower boiler door (cast-iron) 11. Opening for cleaning of the flue box 12. Flow line 13. Cooking plate with stainless-steel frame 14. Return-line Z. Draught regulator handle



Exploded part description: 1. Upper door 2. Lower door 3. Flue gas connection element on the heat plate 4. Flue gas exit 5. Flue gas exit cover 6. Flue exit 7. Automatic draught regulator 8. Ash-tray 9. Lateral housing plate (draught regulator is at the bottom)

1.1 Technical data chart

Type	TEMY ES 10	TEMY ES 15	TEMY ES 25
Nominal power	10 KW	15 KW	25 KW
Power transmitted to the central heating	8 KW	11 KW	19 KW
Temperature range	60- 80 °C	60- 80 °C	60- 80 °C
Minimum temperature of the return line	60 °C	60 °C	60 °C
Width (B)	445 mm	565 mm	620 mm
Height (H)	790 mm	830 mm	880 mm
Length (L)	770 mm	880 mm	970 mm
Flue gas exit height (A)	615 mm	645 mm	695 mm
Flow line height (D)	740 mm	770 mm	820 mm
Return line height (C)	220 mm	225 mm	225 mm
Total weight of the boiler	108 kg	151 kg	182 kg
Flow / Return (F) (inch)	1"	1"	1"
Fill / Drain tap (inch)	1/2"	1/2"	1/2"
Flue gas diameter (E)	Ø 118 mm	Ø 128 mm	Ø 148 mm
Necessary draught	13 Pa	14 Pa	15 Pa
Boiler water volume	25 lit	40 lit	60 lit
Upper door size	258 x 196 mm	258 x 196 mm	258 x 196 mm
Lower door size	258 x 92 mm	258 x 92 mm	258 x 92 mm

1.2 Emission values

TEMY ES is evaluated according to European Directive **2015 :1189** and its emission values as well as boiler efficiency are officially tested and confirmed to be below prescribed limits.

Results	TEMY ES 10	TEMY ES 15	TEMY ES 25
Dust [mg/Nm ³]	42	44	50
CO [mg/Nm ³]	541	572	654
OGC [mg/Nm ³]	19	21	23
NO _x [mg/Nm ³]	99	104	136
Seasonal space heating energy efficiency	79 %	80 %	80 %

1.3 Description of the product

- This product is aimed for living areas. It's a solid fuel boiler device with no thermal insulation coat. Upper surface can be used for preparing food. Product dimensions make it suitable for placement in small areas (TEMY ES 10).
- TEMY ES stove-boiler is made according to EN 303-5 and fulfills Ecodesign criteria 2015:1189.
- **This product can be used as a residential space heater only if the safety requirements defined by EN 12809:2006 are fully respected.**
- This product can only be fed and fired with **dry firewood logs with caloric value of min 15 MJ/kg.**
- Boiler chamber is entirely made of steel, while the frame parts of the upper plate are made of stainless steel AISI 314. The door frames are made of cast-iron. The upper door is filled with fireproof glass, while the lower door is made of steel.
- The flue opening is placed on the **back side.**
- Hot-water volume inside the boiler is high (**up to 60 litres for TEMY ES 25**) – this fact guarantees functionality of the product as a central heating boiler. It has no insulation coating around, so that the heat radiation is also transmitted in a smaller amount to the surrounding area.

2 Recommendations for shipment and storage

2.1 Delivery



Make sure product is during transport always placed in its vertical position.



Turning boiler upside-down can seriously damage the unit.



It is forbidden to stack products.



Product can be stored only in closed area without atmospheric influence. Moisture cannot exceed 80%, room temperature should be between 0°C and 40°C.



While unpacking make sure if the paint is scratched somewhere, and that all boiler parts are stable and fixed in its place.

2.2 Additional parts and documents



Following parts and documents are delivered along the boiler:

- A cleaning kit
- This manual
- Energy efficiency label
- Boiler draught regulator (part of the boiler)
- Ash-tray inside



Following parts are not delivered with the boiler:

- Thermo-manometer and the safety group
- Mixing valve
- Additional boiler room valves and fittings

3 Introduction notes



The end user must strictly follow the guidelines prescribed in this manual. On the contrary, the warranty will not be recognized.



Permitted fuel for this boiler is **dry firewood** with caloric value of at least 15 MJ/kg.



The heating chamber of the boiler is factory tested at **test pressure of 4 bar**.



Pay strict attention that boiler valves are always open while boiler in use.



Don't forget to do a mechanical reset of the circulation pump in your system at start of every heating season.



Clean the boiler on a regular base.



While the boiler is heating up, damp patches and drips may occur in the chimney area and in the hearth. If the pressure in the installation is constant, this phenomenon represents condensation and not a leak from the boiler. The reason for the condensation is a large temperature difference between the flow circuit and the return circuit, and occurs as a consequence of the following errors:

- If the power of the installed boiler exceeds the size of the installations,
- The mixing valve for the protection of the cold part of the boiler has not been installed.
- The boiler door or the ash pan are not correctly positioned (there is more air than necessary).



If the boiler leak is reported to the repair team and it is condensation, the team's visit will be invoiced.



An expert should be entrusted for the planning and construction of the heating system.



In the case of an incorrectly planned system or the the incorrect installation of the system, which can again lead to an incorrect operation of the boiler, the complete liability for the material damage and new costs arising are to be covered by the person who was entrusted with the mounting of the central heating system, and not by the boiler manufacturer, sales representative or seller.



Initial operation of the boiler is only to be performed by an authorized person (service). Please contact your local seller.

4 Safety remarks



While in use, **parts of the boiler are hot**. Don't touch the boiler without appropriate hand protection against heat!



If some parts of the boiler occur to be damaged it is **strictly forbidden** to continue using the boiler.

5 Boiler installation

5.1 Boiler placement



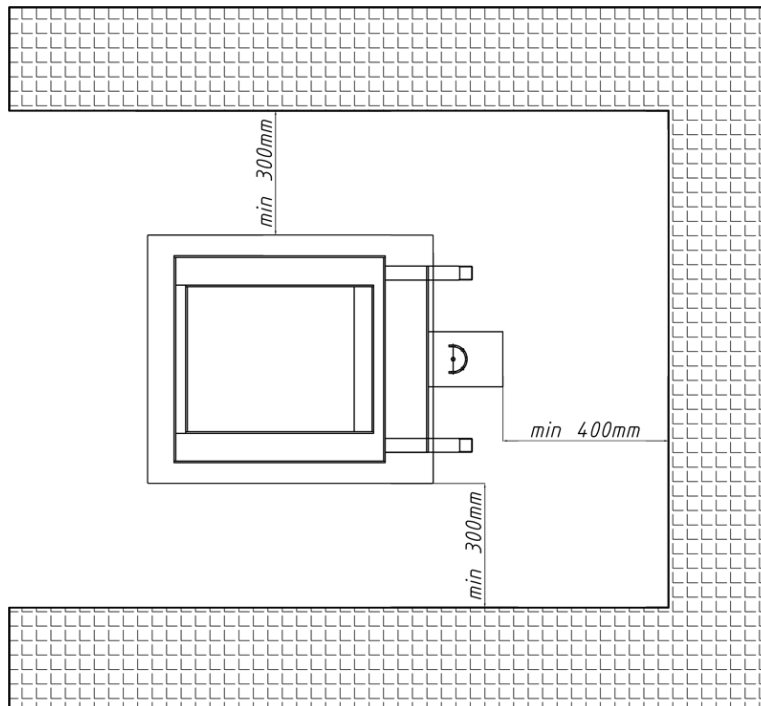
Room where heater is placed, **must have windows**, minimum surface area of window is given by equation:

$$A \text{ (cm}^2\text{)} = 60$$

where **P** represents nominal power of the **KW**.



This product can be used as a residential space heater only if the safety requirements defined by EN 12809:2006 are fully respected.



Boiler basement must be stable and made of fireproof material.

5.2 Connecting to the chimney

This product requires a natural draught and a chimney not just to transport flue gases out of the boiler but also to create **natural pressure difference necessary for boiler function**. This boiler requires pressure drop of **13-15 Pa** depending on the model. Based on this fact chimney diameter and height are to be calculated – according to the manual of the chimney producer! Boiler producer is not responsible for proper chimney dimensioning!

Chimney is to be connected as depicted below and it is necessary to clean the chimney **1-2 times per year**.

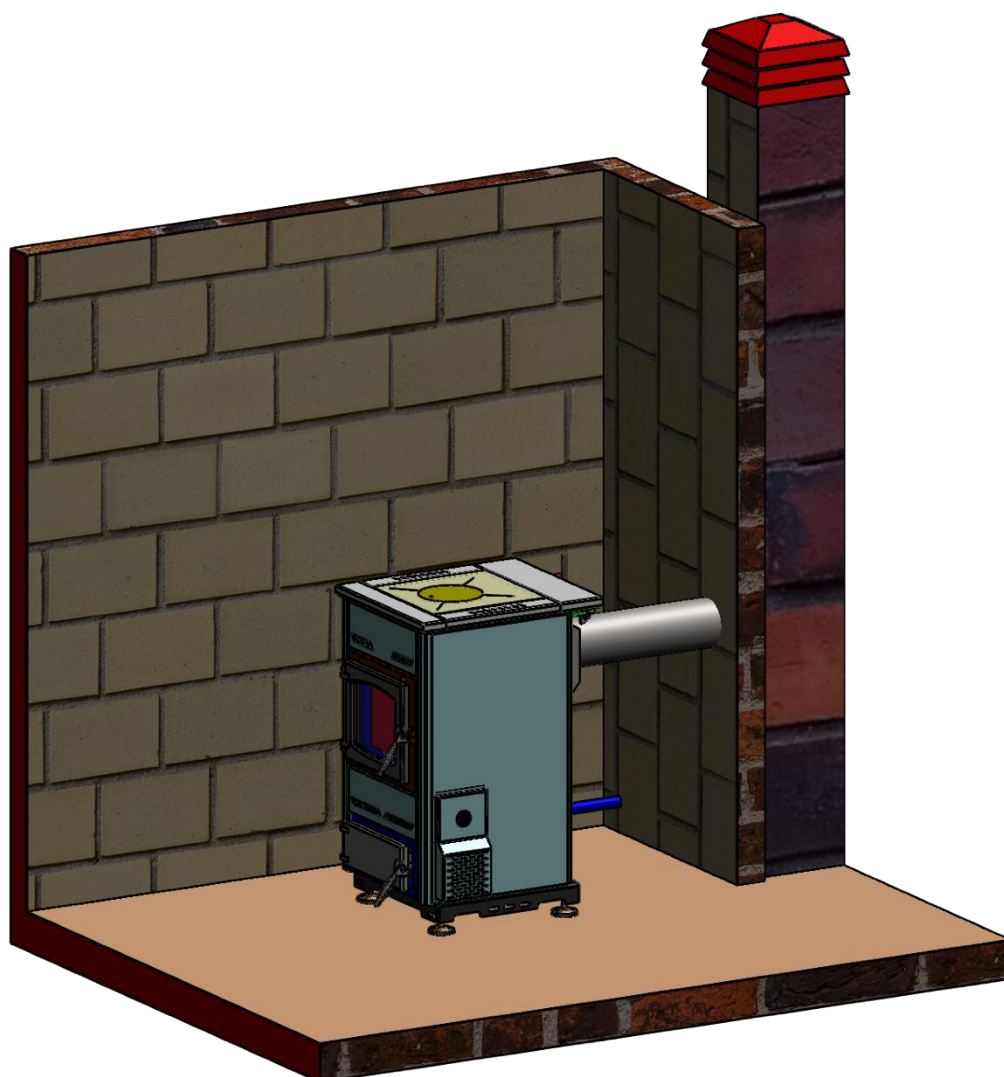
To reduce heat loss and due to ecological and safety factors, it is essential to have a vertical chimney connected according to the picture and, if conditions allow, the chimney must be of quality (made with ceramic segments thick up to 5 cm).



Clean the chimney regularly, at least once or twice a year.



The maximum number of elbows between the boiler and the chimney is 2.



5.3 Filling the system with water

Filling the system with water is to be done using the tap valve connection of the boiler.

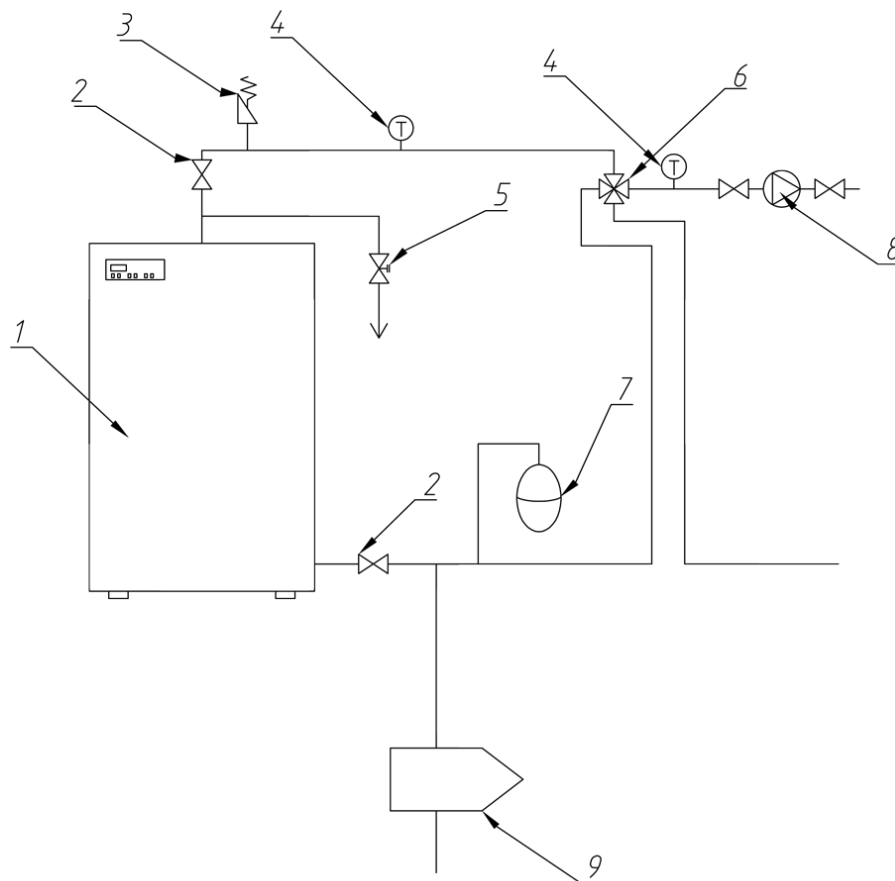


When filling the system with water take care that no air remains in the boiler.

The filling process is done when no air is coming out through automatic air vent and pressure gauge is showing the value between **1 bar** and **1,5 bar** (closed systems). Air vent is to be set at the highest point of the (closed) central heating system. If the pressure is below 1,5 bar the filling process must be repeated. After the filling process is done, it is obligatory to close the drain tap valve, close the water supply to the water-filling pipe and detach the water-filling pipe.

5.4 Connecting the boiler with a closed central heating system with circulation pump on the return line

Recommended connection scheme is depicted below:



- 1) Boiler 2) Boiler valve 3) Automatic air vent 4) Thermo-manometer 5) Safety valve 6) Mix valve 7) Expansion vessel 8) Circulation pump 9) Dirt catcher



The safety valve (with preset **1,5 bar** threshold) should be mounted on the backside of the boiler.



It is essential to have a thermometer and a manometer installed to the system (Position 4 on upper scheme)



It is recommended to install a dirt catcher and also an anticondensation valve on the return line. (3-way mixing valve).



Additional closed expansion vessel (position 7) should be mounted close to the boiler. Vessel must be positioned so that its membrane is in horizontal position. The volume of the expansion vessel should be around **18 lit**.



Please read the circulation pump manual before placing it into operation. Please note air vent is not pre-mounted within the boiler, it should be installed (Position 3) additionally.

6 Boiler cleaning and maintenance



Regular maintenance and cleaning of solid fuel boilers is necessary to ensure product functionality and long-life operation. Boiler cleaning consists of following operations:

1. Emptying ash-trail of the boiler
2. Removing ash from the bottom part of the boiler
3. Cleaning all other accessible parts from ash. Opening for cleaning (Position 11, boiler drawings) are to be used for additional access (at the end of season in any case).



Dry firewood with a caloric value of at least 15 MJ/kg is the only fuel allowed for this type of product. Using other materials is an ecological act of crime and can be punished legally.



Lack of cleaning of the boiler leads to rapid degradation, i.e. corrosion of certain parts of the boiler, which leads to poor combustion and heat loss.



Before accessing cleaning, all parts of the boiler must be completely cold.



Use of gloves is obligatory for all operations described.

**THANK YOU FOR READING THIS DOCUMENT CAREFULLY - IF YOU HAVE
ADDITIONAL QUESTIONS FEEL FREE TO CONTACT US OR YOUR LOCAL
RESELLER.**



Prhovačka bb, 22310 Šimanovci, Serbia
Tél / Fax. +381 22 480404 +381 63 259422
podrska@termomont.rs www.termomont.rs