VIADRUS

# Woodpell

## MANUAL FOR BOILER OPERATION AND INSTALLATION

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***Dear customer,***
***thank you for the purchase of automatic Woodpell boiler; this purchase demonstrates your confidence in VIADRUS a.s..***
***In order to get used to a proper treatment of your new product from the start please read these instructions for its use (first of all the chapter no. 7 – Boiler attendance by user, chapter no. 11 – Important warnings and chapter no. 12 – Maintenance by user). Please observe the information given below in order to ensure a longstanding trouble-free operation of boiler so that both you and we are satisfied.***

# 1. Produced variants of boiler

## 1.1 Order

***In the order it is due to specify following data:***

- Order specification code

**Woodpell X**

**Size:**
**5:** 5 sections
**7:** 7 sections

- Optional accessories (see chapter no. 5.3)

**ATTENTION! Fuel reservoir is not included in the standard accessory of the boiler!**

The boiler design you received is only destined for wooden pellets combustion (specification see page 5) and its trade name is **Woodpell.** It is the boiler with automatic fuel supply. The burner is cleaned manually.
The boiler is manufactured as warm-water boiler with forced heating water circulation and working overpressure up to 400 kPa (4 bar). The boiler is tested for tightness by applying 800 kPa (8 bar) overpressure before despatch.

# 2. Use and advantages of boiler

***The use:***

- **5-section** Woodpell boiler is particularly destined for heating of individual housing units, weekend houses, cottages etc.
- **7-section boiler** Woodpell is particularly destined for heating of cottages, weekend houses, small business premises, smaller leisure amenities etc.

***Advantages of boiler:***

- automatic boiler operation guarantees the heating comfort,
- mechanical fuel feed from any reservoir
- automatic ignition
- simple, not time-consuming attendance and maintenance
- high efficiency reaching 85 %
- boiler drum construction proven on a long-term basis
- high service life of the cast iron boiler drum
- five-year guarantee for the boiler drum
- measuring and monitoring the temperature of combustion products

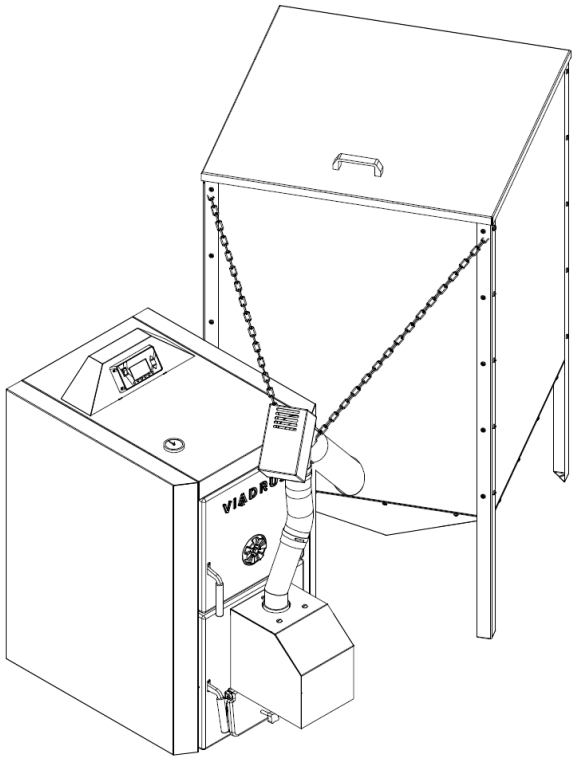


**Fig. no. 1 View of boiler Woodpell with the fuel reservoir**

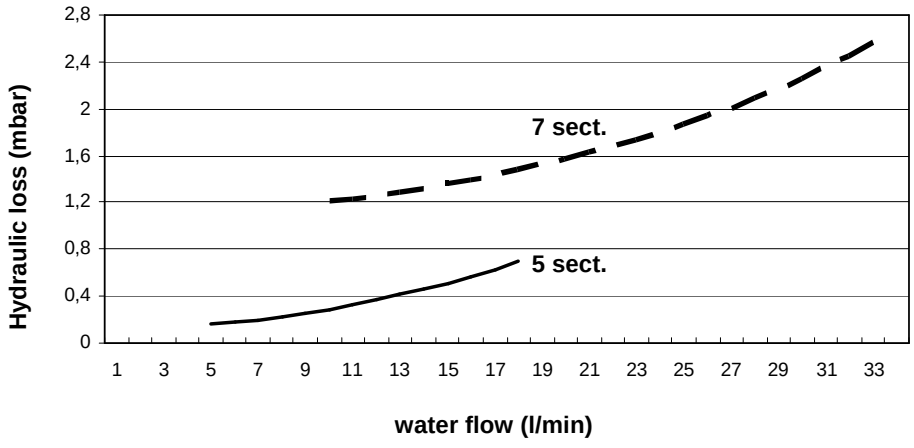
# 3. Boiler technical data

**Tab. no. 1 Dimensions, thermal parameters of boiler**

| Woodpell | | 5 sections | 7 sections |
|---|---|---|---|
| Nominal output | kW | 16 | 25 |
| Controllable output | kW | 5,8 – 16 | 7,8 – 25 |
| Fuel consumption – nominal output (calorific value approx. 17,189 MJ.kg$^{-1}$) | kg. h$^{-1}$ | 4,5 | 7,6 |
| Output in „attenuation“ regime | kW | 1,5 | |
| Fuel consumption in „attenuation“ regime | kg. h$^{-1}$ | 0,15 – 0,3 | 0,5 – 0,7 |
| Efficiency | % | 85 | 84,9 |
| Class of boiler according to EN 303-5 | | 3 | 3 |
| Weight | kg | 358 | 433 |
| Volume of water | l | 40,9 | 50,3 |
| Diameter of smoke neck | mm | 160 | |
| Inner diameter of smoke pipe | mm | 156 | |
| Capacity of delivered fuel reservoir | dm$^3$ | 725 | |
| | kg | 470 | |
| Burning time at nominal output | h | 115 | 72 |
| Burning time at minimal output | h | 398 | 286,5 |
| Dimensions of boiler: width x height x depth | mm | 545 x 1002 x 1091 | 545 x 1002 x 1283 |
| Dimensions of boiler incl. fuel reservoir: width x height x depth | mm | 1820 x 1407 x 1475 | |
| Maximum working water overpressure | kPa (bar) | 400 (4) | |
| Test water overpressure | kPa (bar) | 800 (8) | |
| Minimum temperature of heating water | °C | 50 | |
| Maximum temperature of heating water | °C | 80 | |
| Minimum temperature of return water* | °C | 40 | |
| Chimney draught | Pa | 15 – 25 | 20 – 30 |
| Hydraulic loss (ΔT 20 K) | Pa | 40 | 80 |
| Temperature of combustion products | °C | 105 - 175 | 110 - 200 |
| Mass flow rate of combustion products on the outlet: | | | |
| - at the nominal output | kg. s$^{-1}$ | 0,015 | 0,020 |
| - at the minimum output | kg. s$^{-1}$ | 0,010 | 0,012 |
| Boiler connections - heating water | | G 1 1/2" | |
| - return water | | G 1 1/2" | |
| Noise level | dB | Doesn´t exceed level 60 dB (A) | |
| Connected voltage | | 1/N/PE230V AC 50 Hz TN - S | |
| Operating electric power/max. | W | 70/300 | |
| Electric protection of control box with regulator | | IP 40 | |

* When keeping the minimum temperature of heating water

**BOILER HYDRAULIC LOSS**



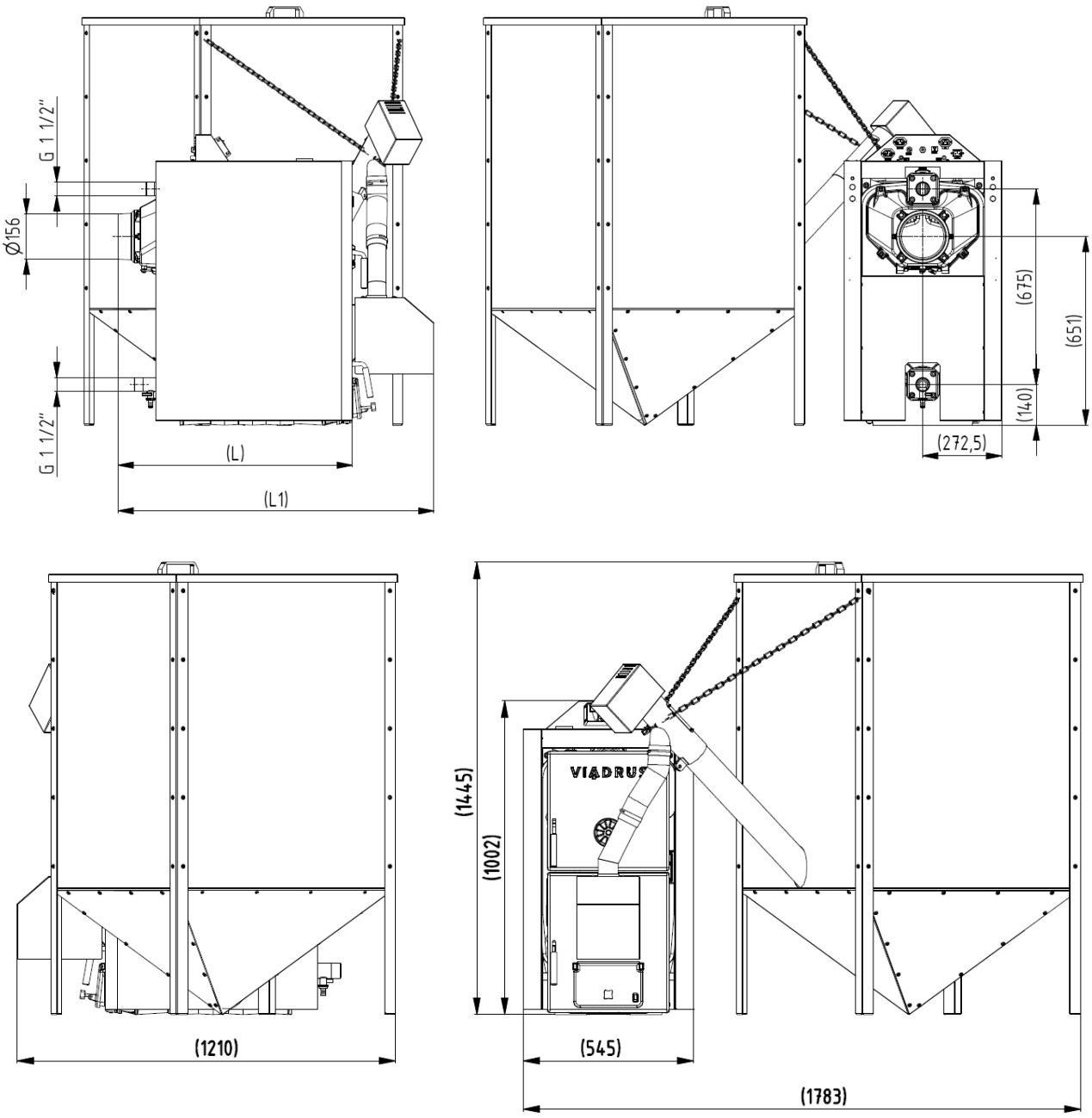
***Specified fuel:***

The pellets must comply at least with one of the standards or regulations as follows:

- Direction no. 14-2000 MŽP ČR
- DIN 517 31
- ÖNORM M 7135

Specified pellets granularity: between 6 and 10 mm
Maximum fuel water content. 12%.
Ash content max. 1,5 %

**WARNING! A poor quality of fuel can markedly negatively affect the boiler output and emission parameters.**




| Size | 5 sect. | 7 sect. |
|---|---|---|
| Length L (mm) | 809 | 1001 |
| Length L1 (mm) | 1091 | 1283 |

**Fig. no. 2 Main dimensions of Woodpell boiler with the fuel reservoir**

# 4. Boiler description

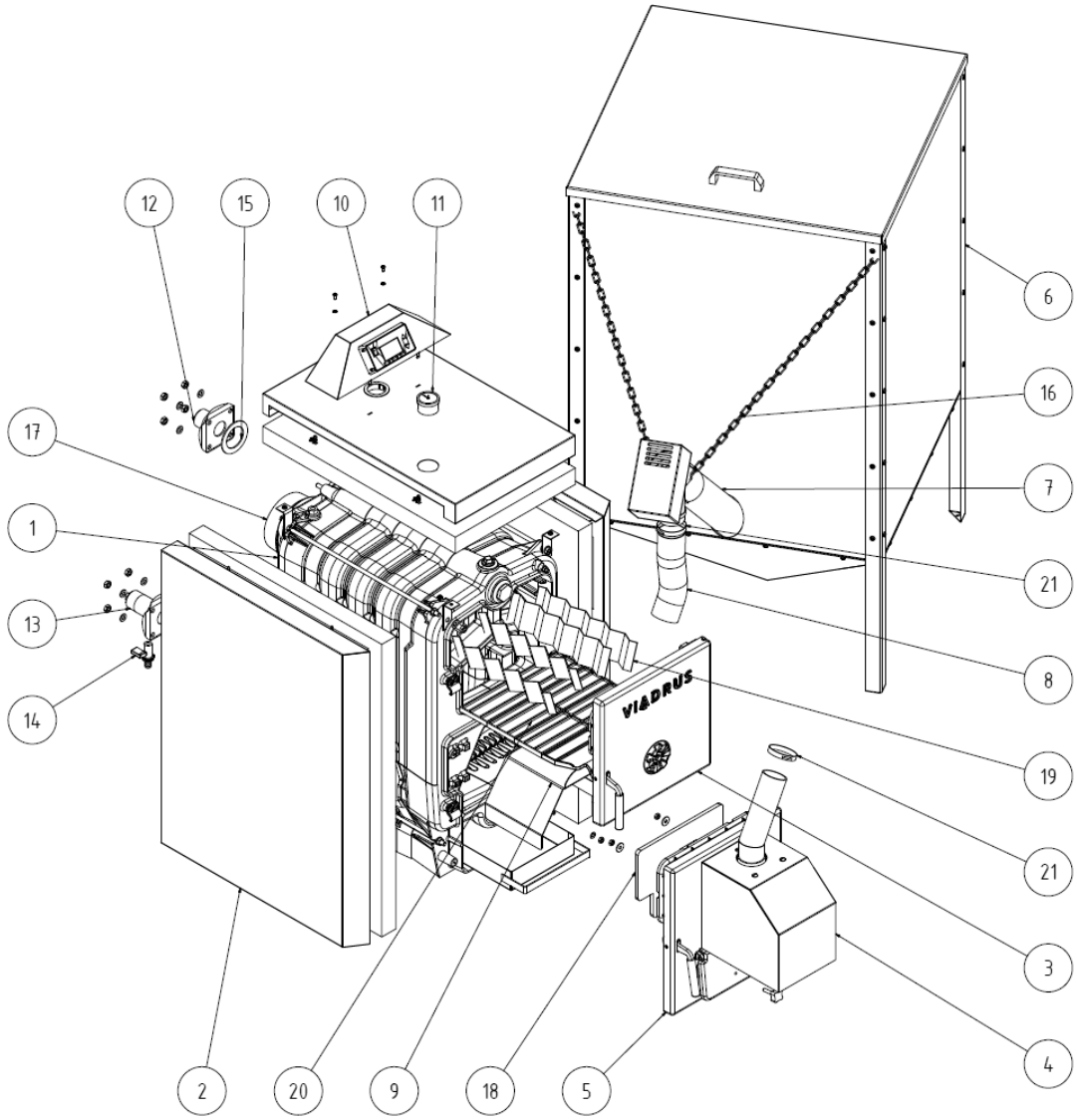
## 4.1 Boiler drum construction

The cast iron section boiler drum is the main part of boiler and it is manufactured of grey cast iron according to EN 1561

- central sections – quality 150 (previously ČSN 42 2415)
- front and rear sections – quality 200 (previously ČSN 42 2420)

The pressure parts of boiler conform to the strength requirements according to:

EN 303-5 Boilers for central heating– part 5: Solid fuel boilers for central heating, with a manual or automatic feed, with nominal thermal output max. 300 kW: terminology, requirements, testing and marking.




1 Boiler drum with ash-pan
2 Boiler shell
3 Stoking door
4 Burner
5 Ash door
6 Fuel reservoir
7 Fuel feeder
8 Transport hose with reinforcing spiral
9 Internal metal plate of the fireplace
10 Control box with regulator
11 Manometer
12 Set of heating water flanges
13 Set of return water flange
14 Inlet and outlet cocks
15 Sealing
16 Pendant chainlet
17 Set of the smoke adapter
18 Insulation of protective plate
19 Turbulators
20 Partitions in combustion space
21 Hose clamp

**Fig. no. 3 Woodpell boiler scheme**

The boiler drum is assembled of sections by means of pressed on boiler insertions and secured by means of anchor bolts. The sections create the combustion and ash-pan space, the water space and convection part. The inlet and outlet of heating water are situated in the rear part of boiler.
The rear section of boiler in its upper part has a smoke extension piece and heating water flange, in the lower part there is the return water flange with a sleeve piece for inlet and outlet cocks. To the front section there is attached the stoking door and ash door with the mounted burner.
The whole boiler drum is insulated by means of a health harmless mineral insulation which reduces the losses caused by the heat transfer into ambient. The steel shell colour is treated by means of high-quality komaxit spray.

## 4.2 Control, regulation and safety elements

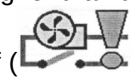
**Regulator of boiler** it serves for automatic control of boiler activities and its elements. It processes the input data from flue gases and outlet water temperature sensors and according to parameters set by the manufacturer or user it automatically controls the boiler in the required regimes.
The regulator also allows the manual regime of boiler control which can be advantageously used when putting the boiler into operation.
Regulator has an automatic electric ignition system and it is developed for the modulation control of fuel (wooden pellets) supply and modulation control of fan delivery.
The regulator measures the temperature of boiler start and the temperature of combustion products so that we can regulate the heating output.

**The pressure gauge** is used to measure water pressure in the heating system and is located in the upper part of the shell. The check valve for pressure gauge connection is in the top part of the rear boiler section.

**Forced-draught fan** for the combustion air is mounted directly in the combustion chamber body. The volume of combustion air is regulated by an air strangler.

**The air rosette of stoking door** and lower strangler are not used at the Woodpell boiler with an automatic combustion of wooden pellets and **it must be permanently closed**.

**Cleaning cover of the** smoke extension piece is situated in its lower part and it serves for cleaning the combustion products lines. JS 130 bulb for pro flue gases sensor is mounted in it.

**The safety thermostat** is positioned in the regulator control box and it serves for heating system prevention from overheating. It is set by the manufacturer to 95°C temperature it means the temperature higher than the required temperature possible to be set at the boiler. When the safety thermostat is switched off (  is shown on the regulator display – see chapt. 8) its deblocking must be carried out manually. The safety thermostat can only be switched on after the temperature has dropped below the set value. We unscrew the black cover of the safety thermostat and depress the push button with a suitable object.
In case the safety thermostat is switching off repeatedly the boiler must be put out of operation and the reason of repeated boiler overheating must be identified.

# 5. Location and installation

## 5.1 Regulations and directives

**The solid fuel boiler can only by mounted by a company holding a valid authorization to install these equipments.**
**A project according to the valid regulations must be prepared for the installation.**
**The heating system must be filled with water that matches the requirements of ČSN 07 7401 and especially its hardness must not exceed the required parameters.**

| Recommended values | | |
|---|---|---|
| Hardness | mmol/l | 1 |
| $Ca^{2+}$ | mmol/l | 0,3 |
| Concentration of total Fe + Mn | mg/l | (0,3)* |

*) Recommended value

**WARNING!!! The use of anti-freeze mixture is not recommended by the manufacturer.**

**a) regarding the heating system**

| | |
|---|---|
| ČSN 06 0310 | Thermal systems in buildings – Design and installation |
| ČSN 06 0830 | Thermal systems in buildings – Protecting devices |
| ČSN 07 7401 | Water and steam for thermal energetic devices with steam working pressure up to 8 MPa. |
| EN 303-5 | Boilers for central heating – Part 5: Solid fuel boilers for central heating with manual or automatic feed and max. 300 kW nominal thermal output: terminology, requirements, testing and marking. |

**b) regarding the chimney**

| | |
|---|---|
| ČSN 73 4201 | Chimneys and flue gas ducting– designing, implementation and connection of fuel consumers. |

We recommend that Woodpell boiler is connected to the smoke flue with min. 160 mm diameter and the chimney draught must be 15 - 30 Pa – see tab. no. 1.

**c) regarding the fire regulations**

| | |
|---|---|
| ČSN 06 1008 | Fire safety of thermal equipments |
| EN 13 501-1 + A1 | Fire classification of construction products and building elements – Part 1: Classification using test data from reaction to fire tests. |

**d) regarding the electric network**

| | |
|---|---|
| ČSN 33 0165 | Electrical regulations; marking the leading wires by colours or digits; implementing regulations |
| ČSN 33 1500 | Electrical regulations; revision of electrical equipments |
| ČSN 33 2000-1 ed. 2 | Low-voltage electrical installations – Part 1: Fundamental principles, assessment of general characteristics, definitions. |
| ČSN 33 2000-4-41 ed. 2 | Low voltage electrical installations - Part 4- 41: Protection for safety - Protection against electric shock |
| ČSN 33 2000-5-51 ed. 3 | Electrical installations of buildings – Part 5-51: Selection and erection of electrical equipment – Common rules |
| ČSN 33 2130 ed. 2 | Low-voltage electrical installations – Internal electric distribution lines |
| ČSN 33 2180 | Electrical regulations: Connection of electric instruments and appliances |
| ČSN 34 0350 ed. 2 | Safety requirements for flexibile cords and cables |
| EN 60 079-10 | Electrical regulations: Regulations for electrical equipments at the places with explosion hazard with flammable gases and vapours. |
| EN 60 252-1 | Capacitors for AC motors – Part 1: In general – Design, testing, dimensioning – Safety requirements – Instructions for installation and operation. |
| EN 60 335-1 ed.2 | Electric appliances for household and similar purposes – Safety – Part 1: General requirements |
| EN 60 335-2-102 | Electric appliances for household and similar purposes – Safety – Part 2-102: Special demands on appliances containing the electric connections and burning the gas, oil and solid fuels |
| EN 60445 ed. 4 | Basic and safety principles for man-machine interface, marking and identification – Identification of equipment terminals, conductor terminations and conductors |

**e) regarding the system for HWS heating**

| | |
|---|---|
| ČSN 06 0320 | Thermal systems in buildings– Hot water preparation– Design and project engineering |
| ČSN 06 0830 | Thermal systems in buildings – Protecting devices |
| ČSN 75 5409 | Water installations inside buildings |

## 5.2 Positioning possibilities

**Boiler positioning in the living space (including corridors) is prohibited!**
**The installation of the boiler must comply with all requirements of ČSN 06 1008.**

***Boiler positioning with regard to the fire regulations:***

1. Positioning on the floor made of incombustible material:
   - put the boiler on a fireproof pad exceeding the boiler plan by 20 mm on the sides and only up to the depth of the boiler drum. Boiler must stand horizontally.
   - In case the boiler is installed in a cellar it should be put on a minimally 50 mm high bedding and the boiler must stand horizontally.

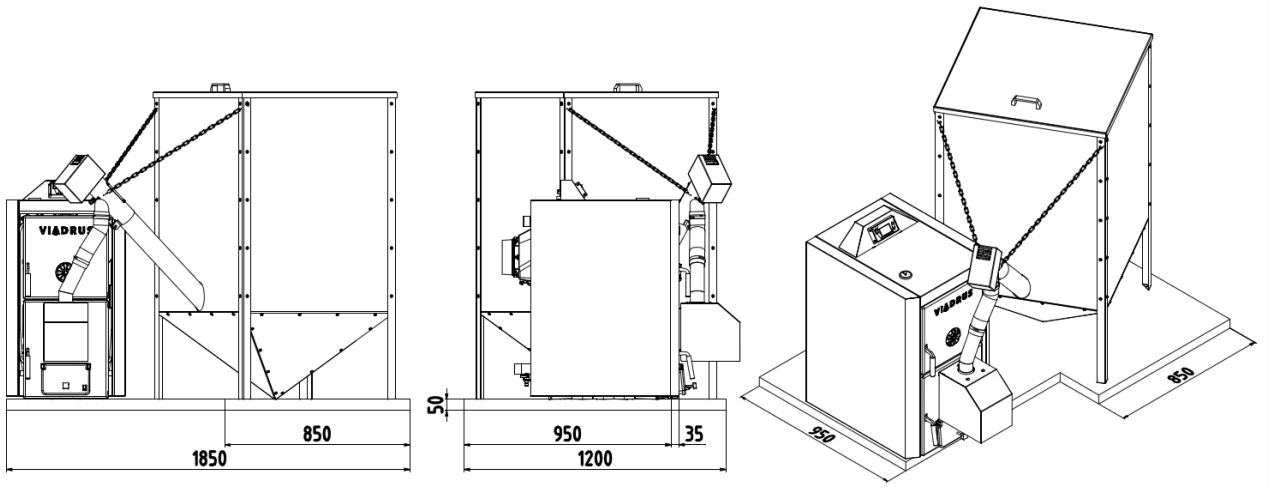



**Fig. no. 4 Dimensions of supporting brickwork**

2. Safety distance from the combustible materials:
   - when installing and operating the boiler it is necessary to keep a safety distance of 200 mm from the materials of combustibility grade A1, A2, B and C (D);
   - for easily combustible materials of combustibility grade E (F), which quickly burn and burn themselves even after removal of ignition source (such as paper, cardboard, asphalt and tar paper, wood and wood-fiber boards, plastics, floor coverings) the safe distance has to be doubled, i.e. to 400 mm;
   - safe distance should be doubled as bulb where the grade of reaction to fire has not been proved.

**Tab. no. 2 Grade of reaction to fire**

| Grade of reaction to fire | Examples of building materials and products included in the reaction to fire (Extract from EN 13 501-1 + A1) |
|---|---|
| **A1** – incombustible | Granite, sandstone, concrete, bricks, ceramic tiles, mortars, fireproof plasters, … |
| **A2** – combustible with difficulty | acumin, izumin, heraklit, lignos, boards and basalt felt, fibreglass boards,... |
| **B** – hardly combustible | Beech and oak wood, hobrex boards, plywood, werzalit, umakart, sirkolit,... |
| **C (D)** – medium combustible | Pinewood, larch, whitewood, chipboard and cork boards, rubber flooring,... |
| **E (F)** – easily combustible | Asphaltboard, fibreboards, cellulose materials, polyurethane, polystyrene, polyethylene, PVC,… |

***Boiler positioning with regard to the necessary handling space:***

- Basic environment AA5/AB5 according to ČSN 33 2000-1 ed. 2
- 2100 mm is the minimal height of the boiler

***Boiler positioning with regard to electricity network:***

- The boiler must be placed so that the plug in socket (230 V/50 Hz) is always accessible.
- the boiler is connected to the mains by a fixed movable inlet with a normalized plug
- the electric shock prevention must be guaranteed according to valid EN (see chap. 5.1.)

***Fuel placing:***

- **dry fuel (**up to the 12% moisture**) must be used in order to guarantee the correct combustion in the boiler.** The pellets should be stored in their original packing from the manufacturer (e.g. PET sacks) at a dry place.
- it is impossible to store fuel behind the boiler or unload it next to the boiler in a distance smaller than 400 mm
- the manufacturer recommends that min. 1000 distance is kept between the boiler and fuel or the fuel is placed in a room different from that where the boiler is installed

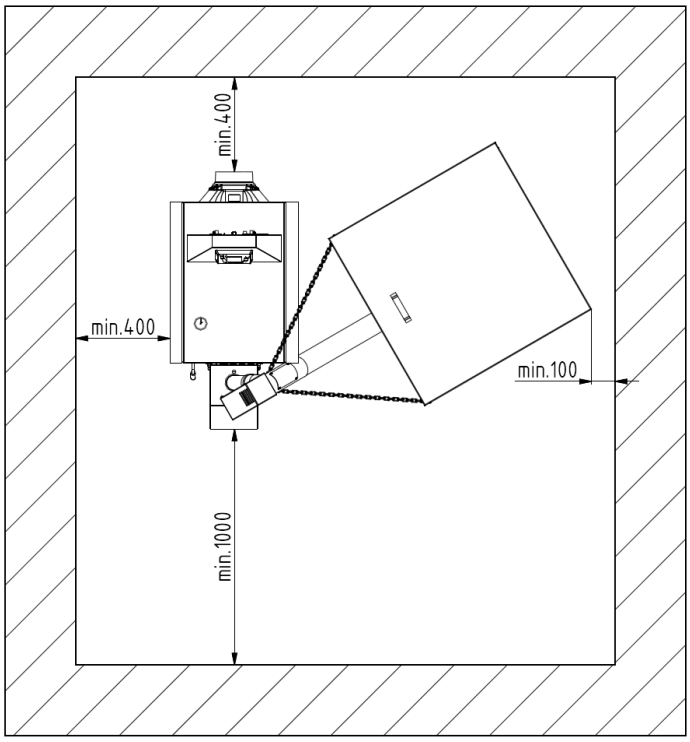



**Fig. no. 5 Boilers positioning in the boiler room**

**A permanent air supply for combustion and ventilation must be guaranteed in the room where the boiler is installed (the air consumption of Woodpell 5 sect. boiler amounts to approx. 80 $m^3.h^{-1}$, the air consumption of Woodpell 7 sect. boiler amounts to approx. 160 $m^3.h^{-1}$).**

The connection of heating system piping must be carried out by a person authorised according to the valid regulations.

**CAUTION: When connecting the boiler to the heating system there must be installed a inlet and outlet cocks in the lowest point and as near as possible to the boiler (at the return water flange).**

## 5.3 Delivery and accessories

Woodpell boiler is delivered according to the order; the complete boiler drum without the ash door and burner is placed on the pallet and in the side of it there is attached the wrapped boiler shell. The accessories are in a box. Then on the pallet there is placed a box with ash-pan door and burner, control box with regulator, fuel feeder and internal metal plate of the fireplace.
The boiler is wrapped in shipping package and it must not be tipped during the transport. It is only allowed to tilt it aside in order to remove the packing from the boiler drum.

***Standard accessories to boiler:***

- boiler on the pallet
- ash door
- connection accessories for the ash-pan door assembly
  - nut M8 — 2 pcs
  - washer 8,4 — 2 pcs
- burner incl. cover
- material for burner assembly
  - internal metal plate of the fireplace — 1 pc
  - fuel feeder — 1 pc
  - elbow — 1 pc
  - transport hose with reinforcing spiral — 1 pc
  - hose clip ESK 58-75 W12 — 2 pcs
- control box with regulator PUMA incl. the sensors and cables
- connection accessories for the control box assembly
  - screw M5 x 12 — 2 pcs
  - serrated lock washer 5,3 — 2 pcs
- shells in the carton incl. ash pan

- connection accessories for the shell installation
  - nut M10 — 8 pcs
  - washer 10,5 — 8 pcs
  - connecting stud — 4 pcs
  - spring clip — 4 pcs
  - screw M5 x 12 — 4 pcs
  - washer 5,3 — 4 pcs
  - bushing HEYCO — 3 pcs
  - washer 5,3 — 4 pcs
  - screw ST 4,2 x 9,5 — 6 pcs
- cleaning tools (hook, brush with a handle, spike)
- holder for cleaning tools — 1 pc
- manometer — 1 pc
- inlet and outlet cocks Js 1/2“ — 1 pc
- turbulators — 4 pcs
- partitions in combustion space — 4 pcs (7 sect. 5 pcs)
- plug Js 6/4“ dummy — 1 pc
- setscrew of the throttle — 1 pc
- heating water flange G 1 1/2" — 1 pc
- return water flange G 1 1/2"with a sleeve piece Js 1/2“ for inlet and outlet cock — 1 pc
- sealing ϕ 90 x 60 x 3 — 2 pcs
- sealing ϕ 60 x 48 x 2 — 1 pc
- Cable clamp — 4 pcs
- Bulb for flue gas sensor — 1 pc
- capillary spring — 1 pc
- power flexible cord 4,5 m; CGLG 3Cx0,75 — 1 pc
- mating connector GST 3G — 1 pc
- mating connector GST 749 — 3 pcs
- handling key — 1 pc
- business technical documentation

***Accessories delivered by request:***

- fuel reservoir 725 l
  - the side of fuel reservoir — 3 pcs
  - the side of fuel reservoir with the hole for spiral worm — 1 pc
  - the foot of fuel reservoir — 4 pcs
  - the bottom of fuel reservoir — 2 pcs
  - the bottom of fuel reservoir A — 2 pcs
  - the cover of fuel reservoir — 1 pc
  - handle — 1 pc
- connection accessories for fuel reservoir assembly
  - pendant chainlet — 1 pcs
  - screw M6 x 12 — 72 pcs
  - washer 6,4 — 72 pcs
  - nut M6 — 72 pcs
  - screw M6 x 16 — 2 pcs
  - washer 8,4 — 2 pcs

**The boiler equipment delivered “by request“ is not included in the basic price of boiler**

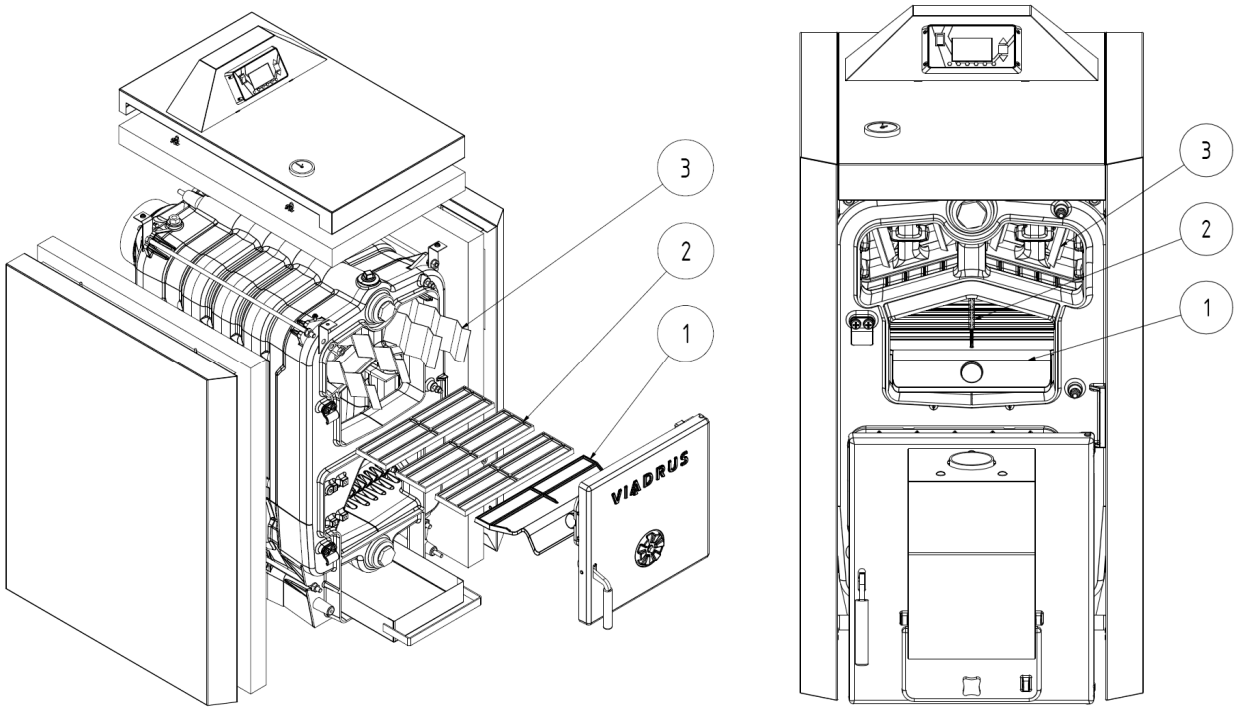
## 5.4 Assembly procedure

### 5.4.1 Boiler drum installation

1. Put the boiler drum on the supporting brickwork.
2. Mount the plug Js 6/4“ (1 pc) including sealing ϕ 60 x 48 x 2 (1 pc).to the front section
3. Insert the sealing ∅ 90 x 60 x 3 on the upper flanged part of the rear boiler section and bolt the flange of heating water and connect the other end with the heating system.
4. Insert the sealing ∅ 90 x 60 x 3 on the bottom flanged part of the rear boiler section and bolt the flange of return water with a sleeve for the filling and discharge cock and connect the other end with the heating system.
5. After the boiler connection to the heating system screw the filling and discharge valve into the return water flange sleeve.
6. Put the smoke pipe on the smoke extension piece and insert it into the chimney hole.

## 5.4.2 Installation of partitions of combustion chambers and turbulators

1. According to Fig.6 insert 4 pcs turbulators and partitions of the combustion chamber (for 5-sectional size) or 5 pcs (for 7-sectional size)

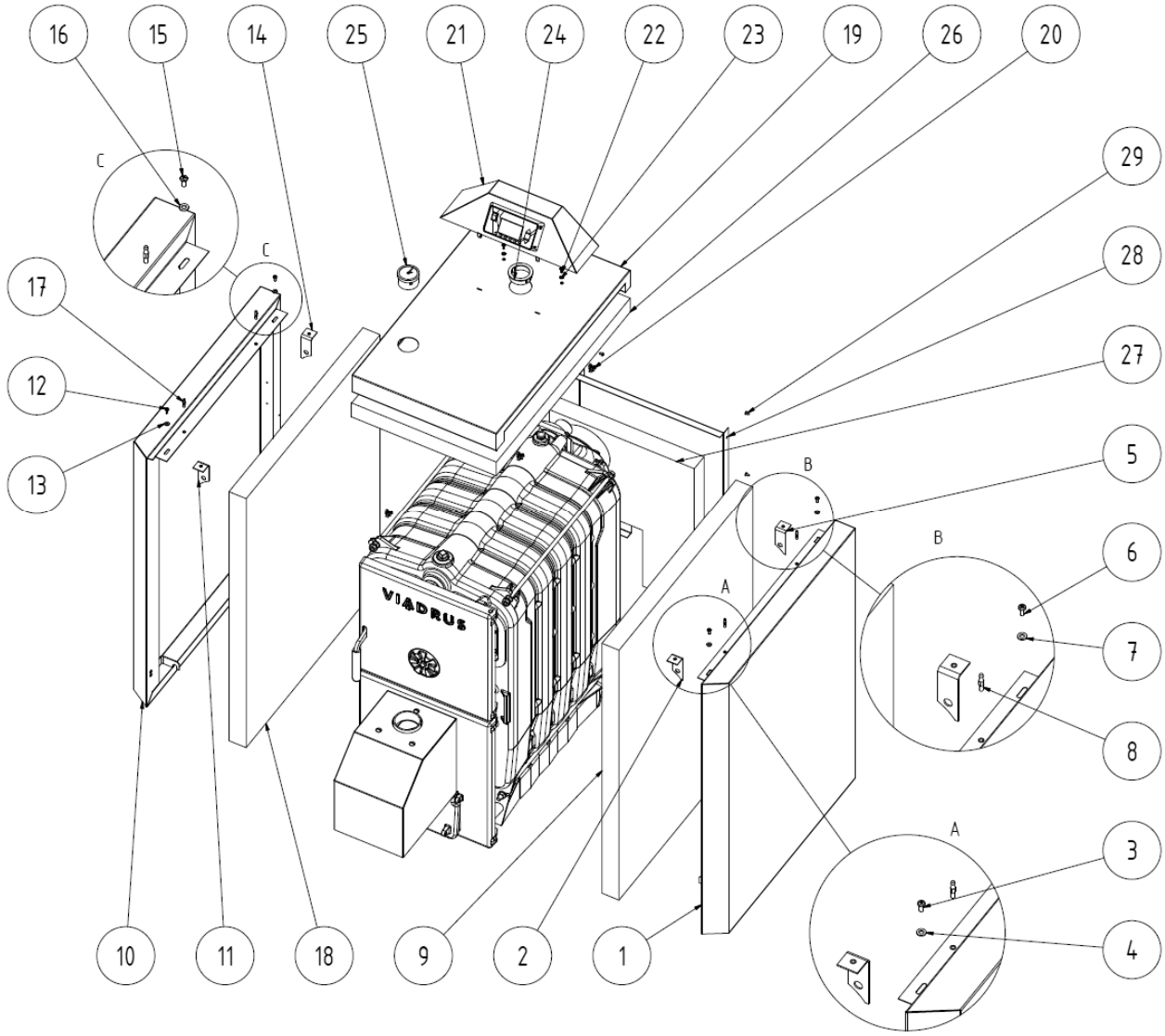



1. Partition of the combustion chamber– front part
2. Partition of the combustion chamber
3. Turbulator

**Fig. No. 6 Installation of the partitions of the combustion chamber and turbulators**

## 5.4.3 Shells and control box installation

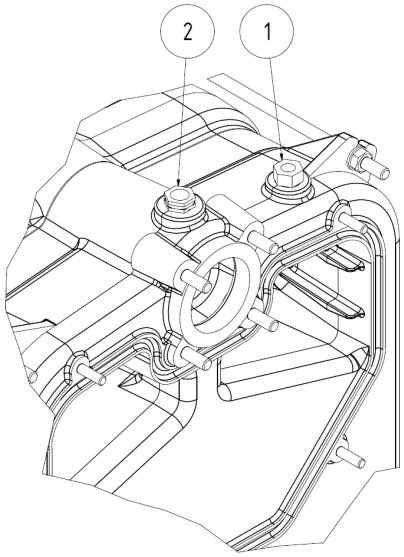
1. Remove the shells from the cardboard cover.
2. Carry out the assembly according to Fig. no. 7.
3. Put the consoles 1 (2) and 2 (5) to the thread of the right upper anchor bolt and screw them by means of 2 nuts M10 and 2 washers 10,5.
4. Mount two connecting studs (8) to the right side part of the shell (1); then insert the insulation (9). Put the shell on the lower anchor bolts and connect the upper part with consoles 1 and 2 by means of 2 screws M5 x12 (3, 6) and 2 washers 5,3 (4, 7).
5. Put the consoles 1 (11) and 2 (14) to the thread of the light upper anchor bolt and screw them by means of 2 nuts M10 and 2 washers 10,5.
6. Mount two connecting studs (17) to the left side part of the shell (10); then insert the insulation (18). Put the shell on the lower anchor bolts and connect the upper part with consoles 1 and 2 by means of 2 screws M5 x12 (12, 15) and 2 washers 5,3 (13, 16).
7. Mount the insulation on the rear part of the shell (27) to the rear part of jacketing (28) and screw it to the side parts of jacketing by means of screws ST 4,2 x 9,5 (29).
8. Mount four spring clips (20) to the upper part of the shell (19), insert the manometer (25) and bushing (24).
9. By means of screws M5 x 12 (22) and washers 5,3 (23) fix the control box (21) to the upper part of the shell (19) and the boiler temperature sensor, combustion products temperature sensor and safety thermostat capillary push through the opening.




1 Right side part of the shell
2 Console 1
3 Screw M5 x 12
4 Washer 5,3
5 Console 2
6 Screw M5 x 12
7 Washer 5,3
8 Connecting stud
9 Insulation of the side part of the shell
10 Left side part of the shell
11 Console 1
12 Screw M5 x 12
13 Washer 5,3
14 Console 2
15 Screw M5 x 12
16 Washer 5,3
17 Connecting stud
18 Insulation of the side part of the shell
19 Upper part of the shell
20 Spring clip
21 Control box with regulator
22 Screw M5 x 12
23 Washer 5,3
24 Bushing HEYCO
25 Manometer
26 Insulation of the upper part of the shell
27 Insulation of the rear part of the shell
28 Rear part of the shell
29 Screw ST 4,2 x 9,5

**Fig. no. 7 Boiler shell assembly**

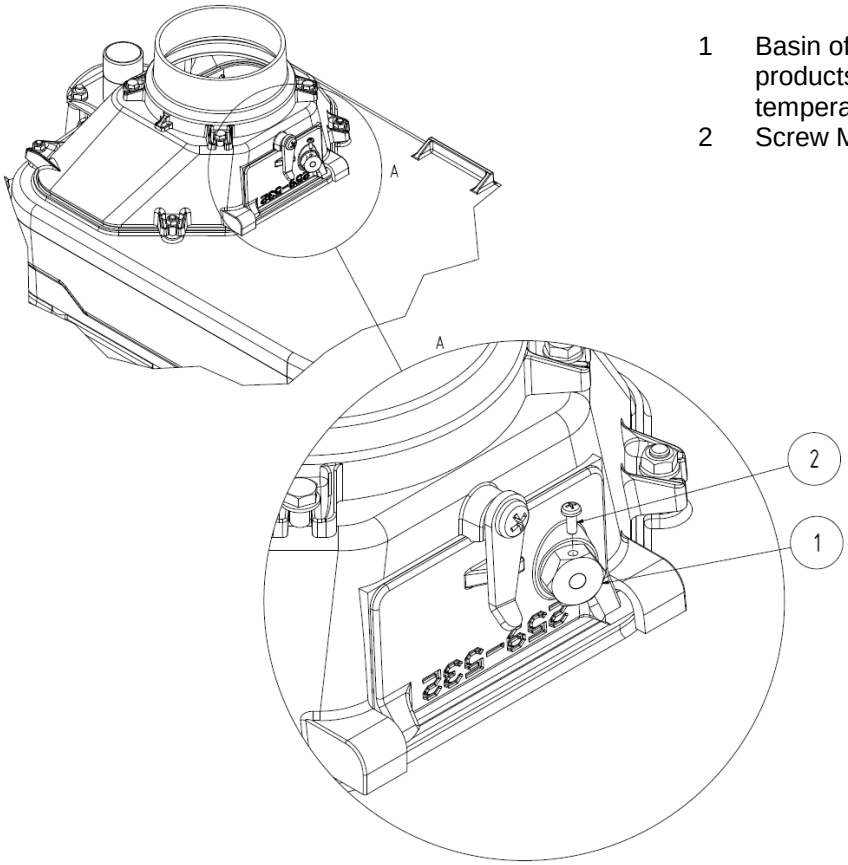
10. Insert the boiler temperature sensor, safety thermostat capillary and secure by means of the spring. Screw the manometer pressure capillary into the check valve for the manometer in the rear section of the boiler drum.




1 Check valve for the manometer
2 Boiler basin

**Fig. no. 8**

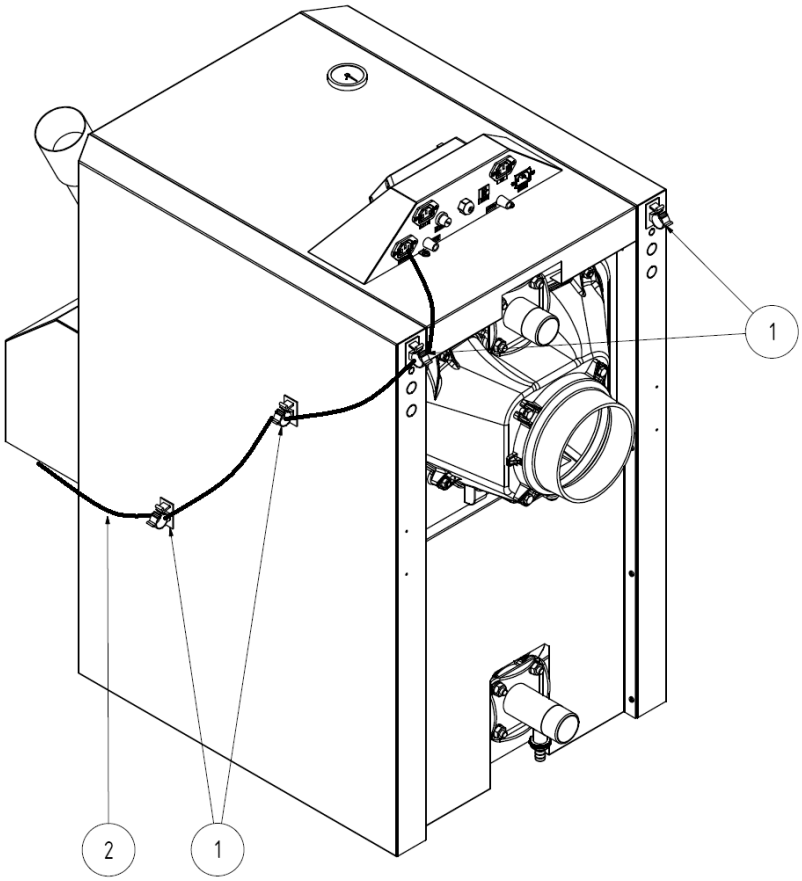
11. Mount the combustion products temperature sensor into the smoke adapter basin and secure by means of screw M4.




1 Basin of combustion products temperature sensor
2 Screw M4

**Fig. no. 9**

12. According to wiring diagram (see chap. 10) connect the connectors:
    X10.1 to X10 (connector of burner)
    X11.1 to X11 (connector of mains)
    X12.1 to X12 (connector of circulating pump of heating circuit)
    X13.1 to X13 (connector of pump for charging the hot water tank)
    X14.1 to X14 (connector of screw of tank)




1. Cable clamp
2. Cable

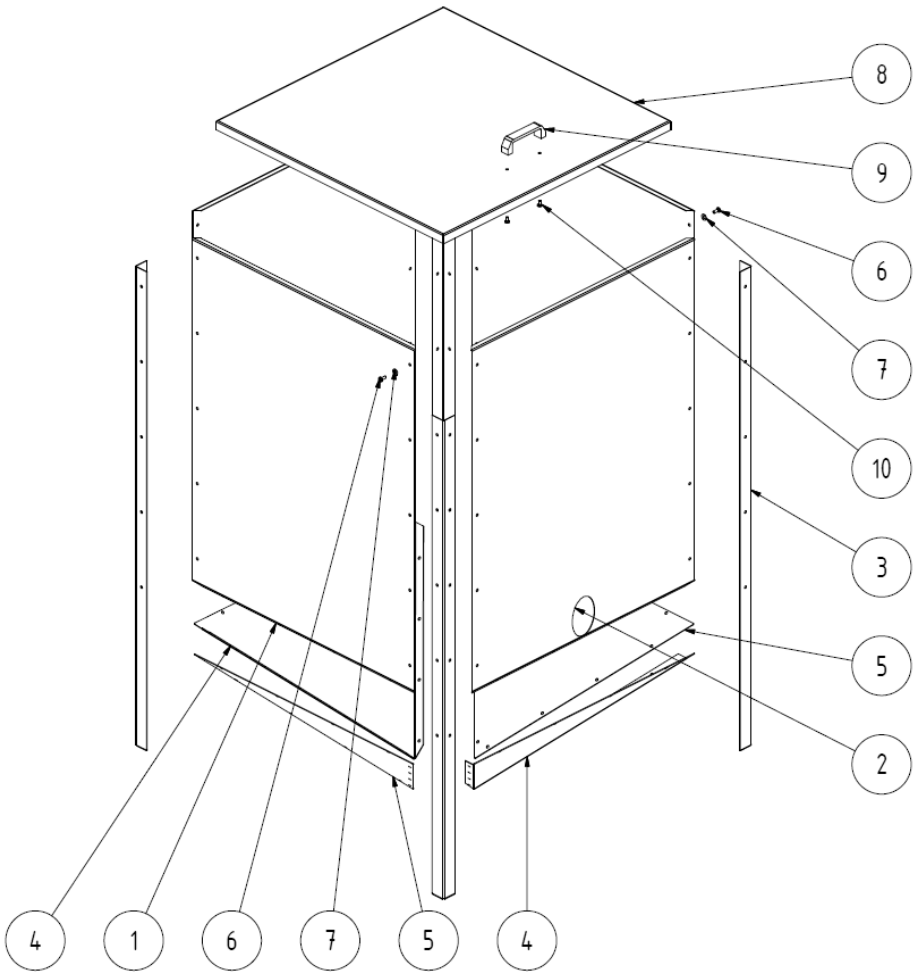
**Fig. No. 10 Recommended placement of cable clamps**

**Warning! The cables must not come into contact with hot parts of the boiler.**

### 5.4.4 Fuel reservoir assembly (this part is delivered at customer's request)

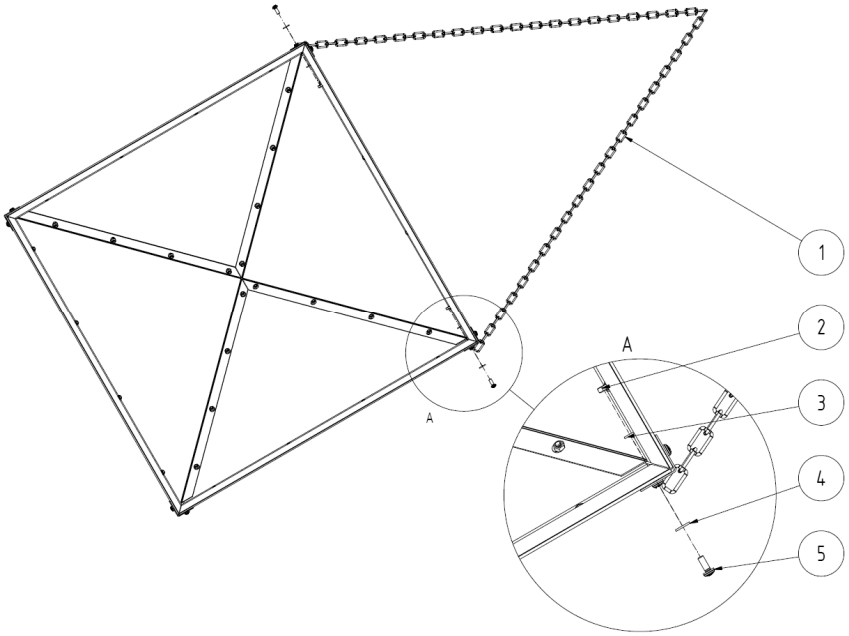
1. Screw together the bottoms of the fuel reservoir. The bottom of the fuel reservoir must alternate with the bottom of fuel reservoir A. Connection accessories are as follows:
   - washers 6,4 72 pcs
   - nuts M6 72 pcs
   - screws M6 x 12 72 pcs
   - screws M6 x 16 2 pcs
   - washers 8,4 2 pcs
2. Then the side and foot of the fuel reservoir can be gradually screwed to this unit
3. Similarly the other 3 vertical walls of the fuel reservoir are assembled.
4. Screw the pendant chainlets to the fuel reservoir according to Fig. no. 12.
5. The complex is covered by the fuel reservoir cover.

*Note:* Alternatively the rivets can be used as the connection accessories for the fuel reservoir assembly, except 6 and 7 positions.




1 The side of fuel reservoir
2 The side of fuel reservoir with the hole for spiral worm
3 The foot of fuel reservoir
4 The bottom of fuel reservoir
5 The bottom of fuel reservoir A
6 Screw M6 x 16
7 Washer 8,4
8 The cover of fuel reservoir
9 Handle
10 Screw M6 x 12

**Fig. no. 11 Fuel reservoir assembly**




1. Pendant chainlet
2. Nut M6
3. Washer 6,4
4. Washer 8,4
5 Screw M6 x 16

**Fig. no. 12 Pendant chainlets mounted on the fuel reservoir**

## 5.4.5 Burner and fuel feeder mounted on the boiler

1. Insert the internal metal plate of the fireplace (2) into the opening in the section approx. 2 cm behind its front edge.
2. Mount the ash-pan door (5) on the boiler by means of two nuts M8 and two washers 8,4.
3. Insert the burner bowl (6) into the holder of the burner bowl (7).
4. Insert the elbow (1) into the burner.
5. Mount the fuel feeder in 45 degrees gradient.
6. The neck of the elbow and the feeder must be in such a position that after inserting the transport hose its blockage with pellets cannot occur.
7. Then interconnect the neck of the feeder with the neck of the elbow and secure both ends by means of hose clamps.
8. Demount the burner cover and insert the seven-pole connector for connection of the burner to the connector counterpart positioned on the burner.
9. Mount the burner cover.
10. Connect 3-pin connector with the fuel feeder in the back panel of the controller with the symbol .

**Fig. no. 13**

1. Elbow
2. Internal metal plate of the fireplace
3. Burner neck
4. Burner cover
5. Ash-pan door
6. Burner bowl
7. Holder of the burner bowl

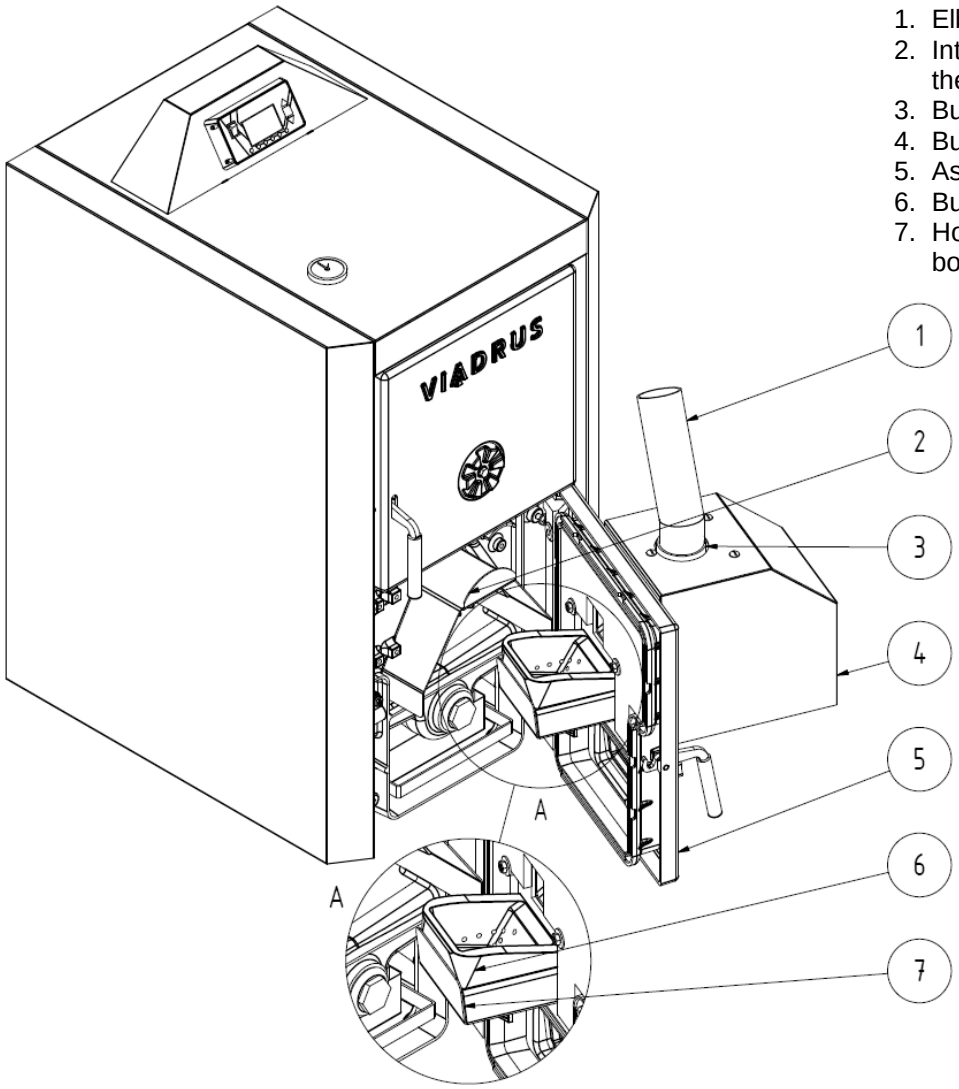



**Fig. no. 14 Burner and fuel feeder mounted on the boiler**

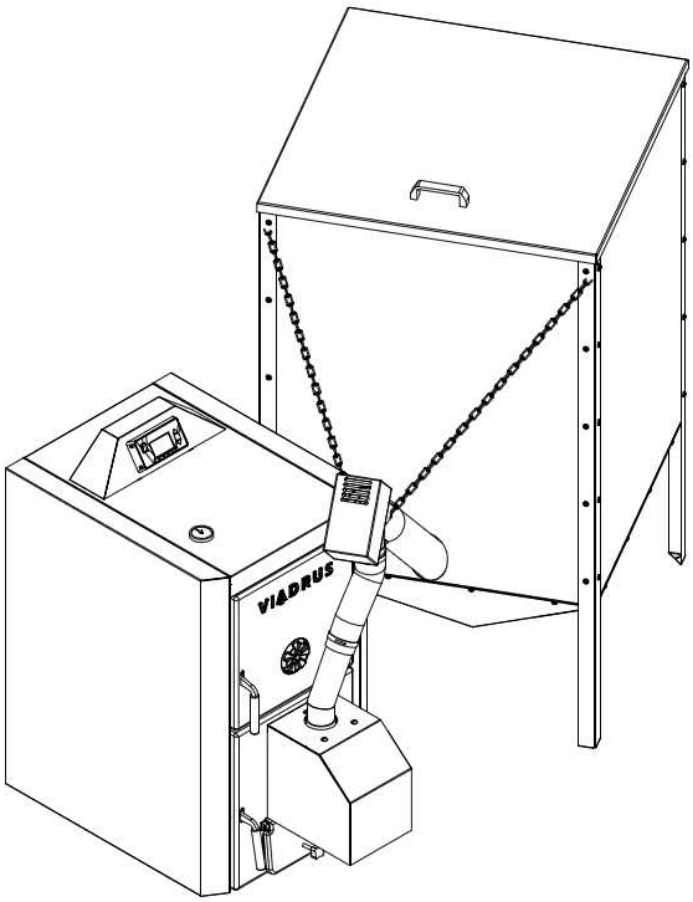



**Fig. no. 15 Boiler burner and fuel reservoir interconnection**

## 5.4.6 Filling the heating system with water

Water for filling the boiler and heating system must be clear and colourless, without any suspended substances, oil and chemically aggressive substances. Its hardness must correspond to ČSN 07 7401 and it is essential that in case the water hardness is unsuitable the water must be treated. Even the multiple heating of water with a higher hardness does not prevent the salts from precipitation on the walls of the boiler drum. The precipitation of 1 mm of calcite in a given place reduces the heat transfer from metal to water by 10 %.
Heating systems with an open expansion tank allow the direct contact between the heating water and atmosphere. During the heating season the water expanding in the tank absorbs oxygen which increases its corrosive effects and at the same time a considerable volume of water evaporates. Only water treated according to ČSN 07 7401 can be used for refilling.
The heating system must be thoroughly flushed in order to wash out all impurities.
During the heating season it is necessary to keep a constant volume of water in the heating system. When refilling the water in the heating system you must be careful of air sucked in the system, which must not happen. Water taken or discharged from boiler and heating system must never be used with the exception of exigencies as are the repairs etc. By water discharging and new water filling the risk of corrosion and scale formation is increased. **If it is necessary to refill water in heating system we only refill the cooled down boiler in order to prevent the sections from disruption.**
After filling the boiler and heating system it is necessary to check the tightness of all joints.

**The assembly completion and heating test execution must be recorded in the „Guarantee certificate“.**

# 6. Putting into operation - instructions for contractual service organization

**The boiler can only be put into operation by a contractual service organization authorized to carry out this activity.**

## 6.1 Inspections before start-up

***Before putting the boiler into operation it I necessary to check:***

a) Filling the heating system with water (check of the manometer).
b) Tightness of heating system.
c) Connection to the chimney – it must be approved by a chimney-sweepers' company.
d) Connection to the electricity network - it must be approved by an authorized company.
When connecting the sockets the grounding pin must be upward and the phase conductor is connected to the left female connector in front view. The same applies to the double receptacles.

## 6.2 Boiler putting into operation

1. Fire the boiler (see chap. 7.). When firing up the protective spraying of boiler section is baked and this process is accompanied by a slight smell. Mind the boiler room ventilation.
2. Bring boiler to the necessary service temperature. The recommended heating water temperature is between 60 and 80 °C.
3. Recheck visually the boiler tightness.
4. Carry out the heating test according to relevant standards (see the Guarantee certificate).
5. Make the user acquainted with boiler attendance (see chap. 7).
6. Make a registration in the Guarantee certificate.

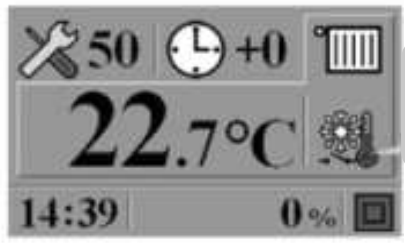
# 7. Boiler attendance by user

## 7.1 Regulator attendance by user

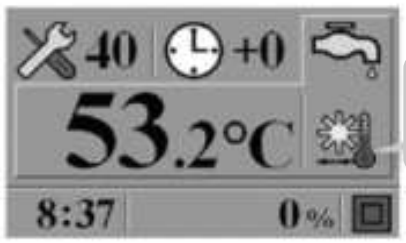
Puma PID 46 controller is characterized by continuous boiler control. Mutually independently it evaluates the increase in water temperature and flue gas temperature. It is equipped with 3 temperature sensors and 5 controlling outputs:

- fan
- feeder
- pump CH
- pump HWS
- lighter

The controller enables collaboration with room thermostat.
The controller will turn on the CH pump at the moment of switching the thermostat, so the room is heated to the desired temperature. The pump runs in the mode: 18 minutes working, 2 minutes pause.If the thermostat does not require the heating, the CH pump operates in the mode: 2 minutes working, 18 minutes pause. This setting is because of the minimum supply of hot water into system. Thus the room is protected against freezing when the room thermostat has a flat battery.
For room thermostat connection and activation please contact the service organization.
After the room thermostat activation the display shows an icon signalling the room thermostat.




**Room termostat switched off**




**Room termostat switched on**

The controller ensures **the rpm control of the pump**. The pump must be set in position II.
In the event that to the system there are connected the pumps which are equipped with automatic rpm control it is necessary to switch off the function of pump rpm control in the controller.

## Technical parameters

- Temperature control range CH: 40 – 80 ºC
- Temperature control range HWS: 40 – 80 ºC
- Power supply: 230V AC 50 Hz, power 1,5 W
- Colour display LCD TFT 400 x 240 pixels
- Load of outputs:
  - At lighter – 300 W
  - At other outputs – 100 W
- Operating temperature 0 ºC – 50 ºC
- Humidity 5 – 95 %
- Panel mounting hole dimensions 62 mm x 133 mm, distance of fasteners 58 mm x 157 mm
- Degree of protectionIP40
- Insulation class I
- Weight 0,3 kg

## Keyboard and indicators

button

- Turn on/off supply of driver

button

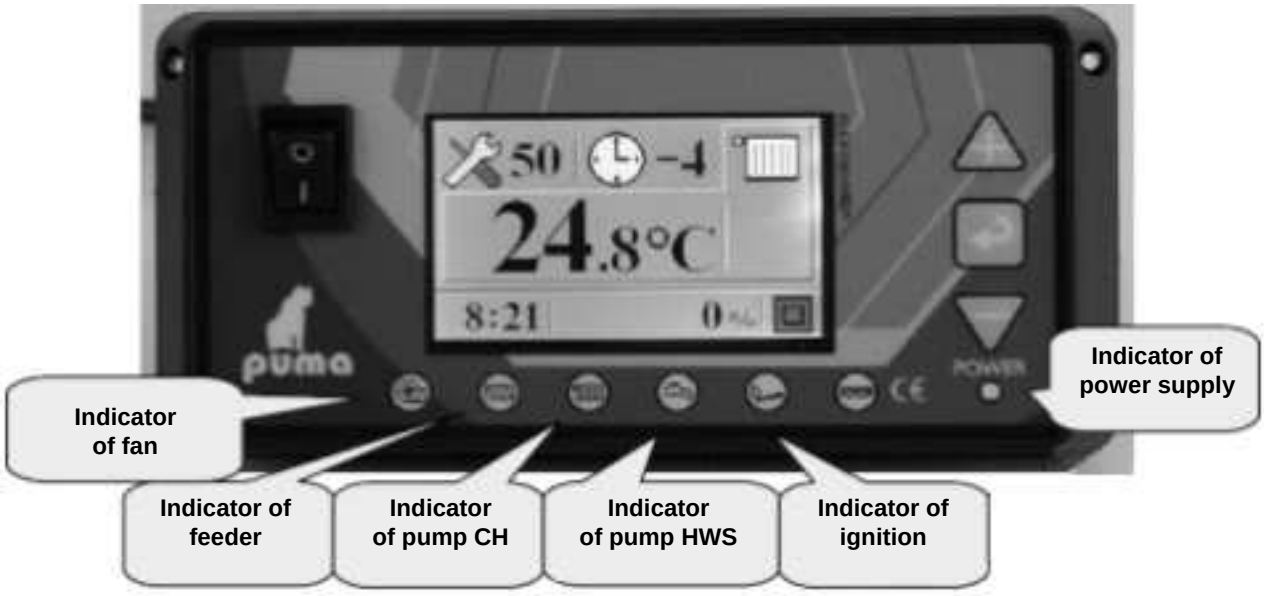
- Brief pressing on working display starts editing of setting the temperature CH
- Long pressing on operating display starts the user menu
- During editing – increase of value or turning on the parameter

button

- Brief pressing – turn on/off of control
- Long pressing on display starts menu of manual control
- During editing – confirming the editing of parameter and selection of a next one

button

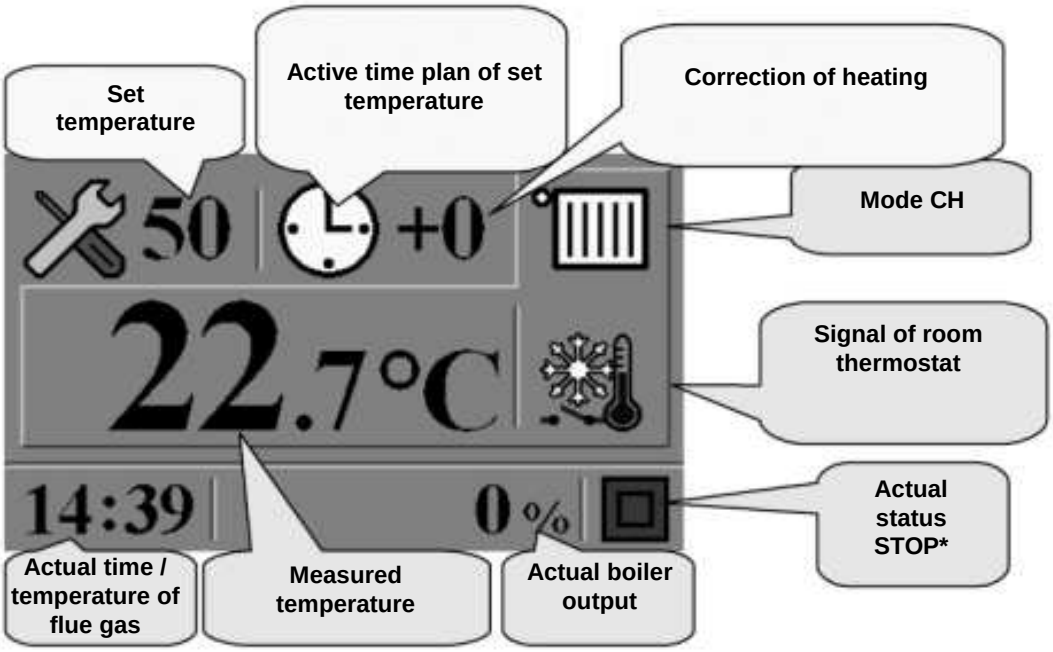
- Brief pressing on display starts editing of setting the temperature HWS
- Long pressing on display starts the installation menu
- During editing – reduction of value or turning off the parameter




## Temperature switch AM 03

| | |
|---|---|
| Function | expanding |
| Voltage | do 250 V; 50 ¸ 60 Hz |
| Max. current at the inductive load (cos φ = 0.6) | 1,6 A |
| Hysteresis | 30 ± 15 °C |
| IP code | IP 00 |
| Insulation resistance | ≥ 2 MΩ |
| Specific dielectric strength | 2000 V; 50 Hz; 1 min . |
| Cross-section of connecting conductors | 0,25 $mm^2$ |

## Operating display CH

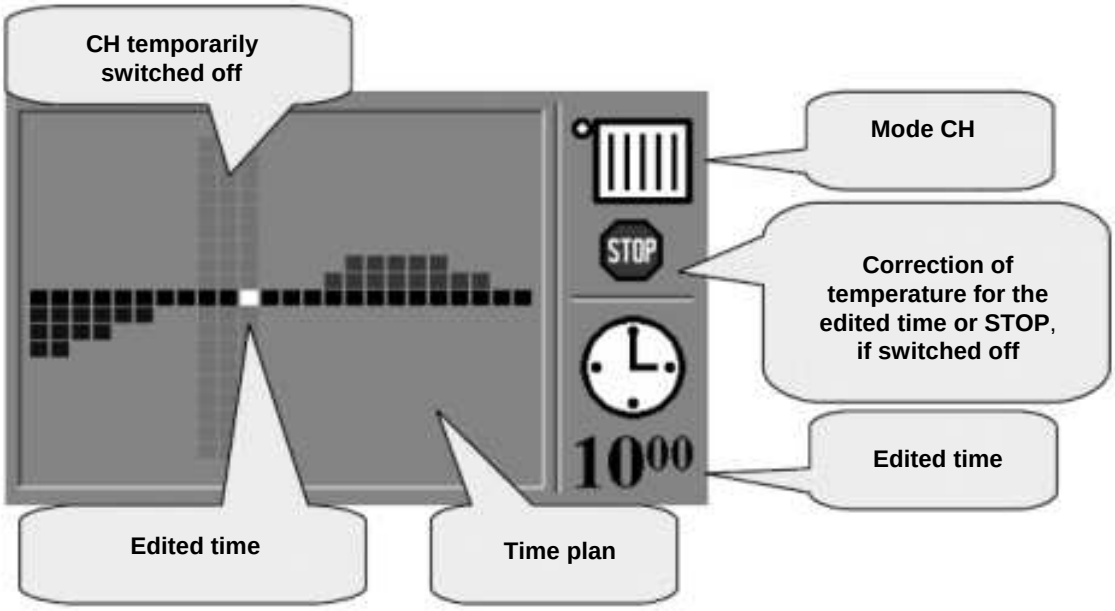



- if the indicator "current state STOP" is flashing, the controller is set in the time plan of the boiler ignition

### Operation of setting CH

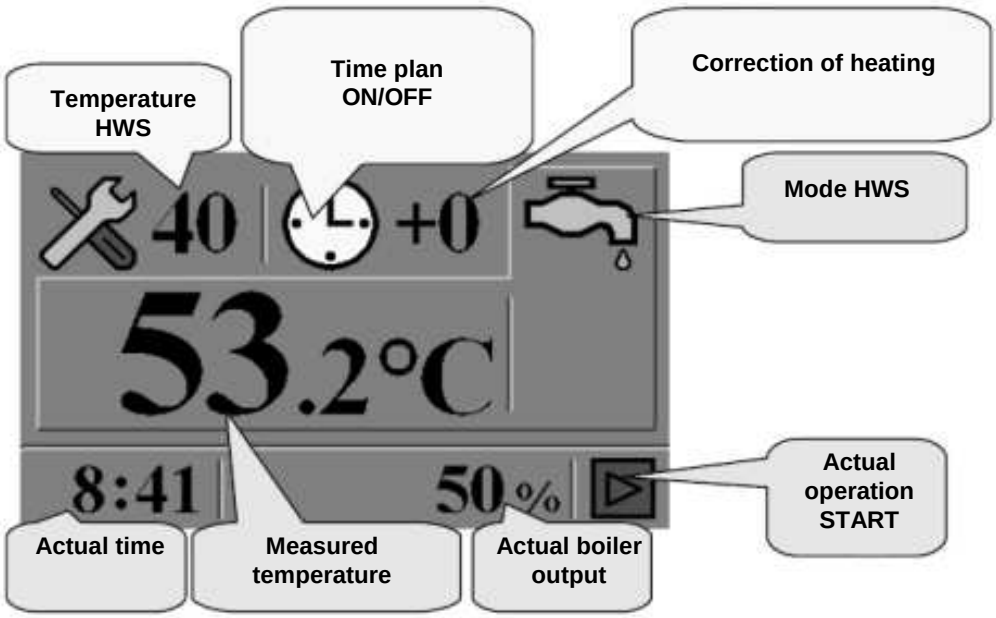
After a brief pressing the key ⊕ the driver goes over into the mode of setting the temperature CH, which is signalled by flashing the icon of set temperature. Editing is done by means of button ⊕ or ⊖ and then by means of button ↻ we go over to the next item. Active setting for editing is always signalled by flashing the given icon or value. After achieving the correct setting it is necessary not to press any button on the equipment for 10 seconds, then the setting are accepted. After pressing the button of shift at the last flashing value that is being set the driver goes over into the first position.
Yellow is the marked the value for editing on the given display. The switched off time plan is signalled by changing the colour of the icon into grey (inactive). Editing the time zone runs on the same screen.

## Correction of temperature CH




The correction is done by means of buttons ⊕ and ⊖ and transition between the individual hours takes place by means of button of shift ↻. The driver allows you to set the corrections from -9 ° C to +9 ° C, or temporarily turn off central heating (pressing ⊖, if the correction is set to -9 °C).

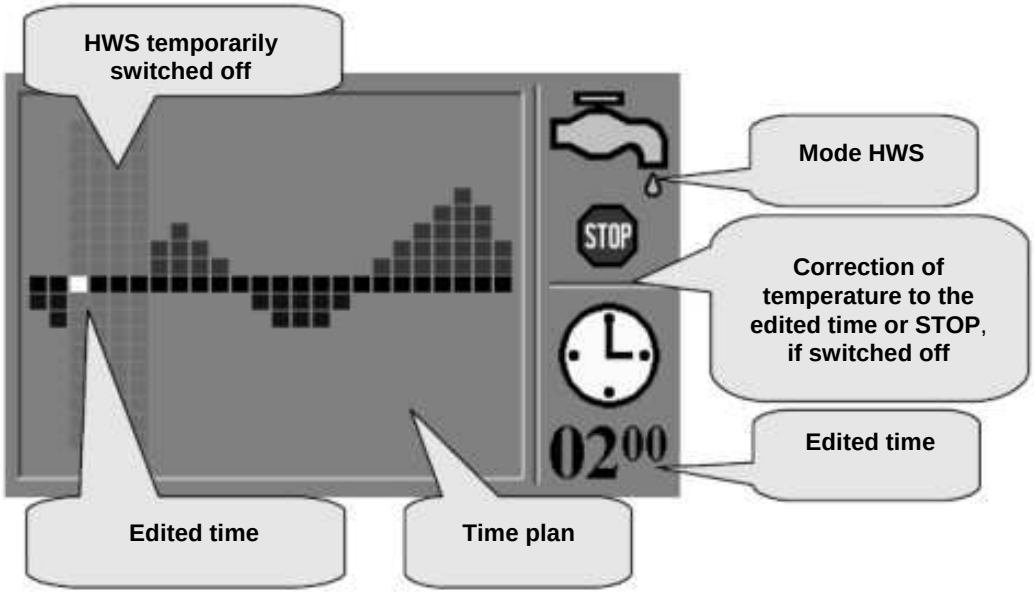
## Operating display HWS




## Operation of setting HWS

After a brief pressing the key ▽ the driver goes over into the mode of editing of setting the temperature HWS, which is signalled by flashing icon of set temperature. Editing is done by means of buttons △ or ▽ and then by means of button of shift ⟲ we go over to the next item. Active setting for editing is signalled by flashing of given icon or value. After achieving the adequate setting it is necessary not to press any button for 10 seconds. Then the setting will be accepted. After pressing the button of shift at the last flashing value that is being set the driver goes over into the first position.
Yellow is the marked the value for editing on the given display. The switched off time plan is signalled by changing the colour of the icon into grey (inactive). Editing the time zone runs on the same screen

## Correction of set temperature HWS




The correction is done by means of buttons △ and ▽ and transition between the individual hours takes place by means of button of shift ⟲. The driver allows you to set the corrections from -9 ° C to +9 ° C, or temporarily turn off central heating (pressing ▽, if the correction is set to -9 °C).

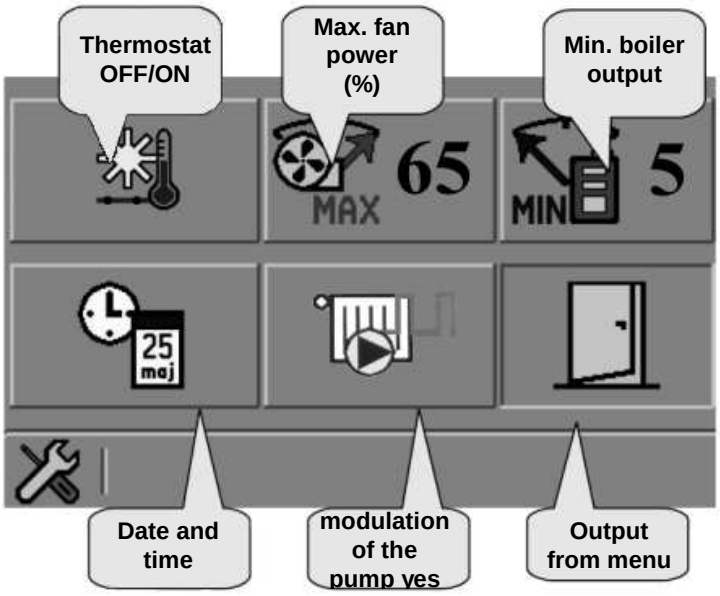
If the controller is in the status STOP (red indicator is on) and we are setting the timetable for UT and TV equally, then I confirm by pressing ⟲. If we have given the plan "stop heating!" then the red indicator will be blinking.

## User menu

Entry into user menu comes after a longer pressing the button ⊕ when the operating screen is displayed on the driver.

The change of given value is possible during flashing of a given value by means of keys ⊕ and ⊖. Transition to the next value is done by pressing the key ↵. Output from menu comes after the selection of icon of door and pressing ⊕ or ⊖. Following values can be edited:

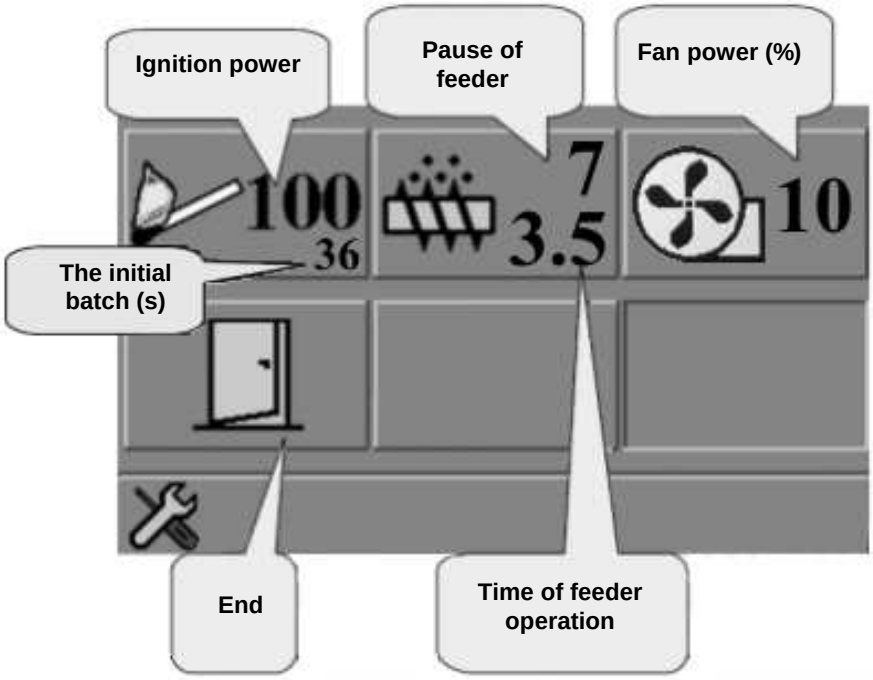
- room thermostat
- Maximum speed of fan – maximum supply of air
- Minimum output of boiler – defines the fuel supply in the mode of maintaining the flame e
- Date and time
- The modulation of the pump yes / no (when the modulation is switched off the pump works at the same power)




## Installation menu

Entry into the installation menu takes place after long pressing ⊖ and entering relevant code. Code is entered by means of buttons ⊖ and ⊕ confirmed by means of button ↵.

For entry into this menu it is necessary to enter the code „3111".

After entering the code the appropriate menu is displayed.
It is possible to set following values:

- Performance of ignition – it enables us to change the power of fuel ignition
- The initial batch (s) of fuel for ignition
- Pause in fuel feeding
- Length of operation of feeder
- Fan power when during the ignition

The given value can be changed when it is flashing by means of keys ⊕ and ⊖. Transition into the next setting after pressing the button for shift ↺. The output from menu after selection of icon and pressing ⊕ or ⊖.

**Other codes:**

Code 1709 setting the boiler output manually– in this mode the boiler works at the output set by user
Code 1203 browsing the histogram of boiler output (for termination of browsing it is necessary to enter again the code 1203)
Code 3105 selection of language
Code 2203 setting by manufacturer

## Heating up

### Setting by manufacturer

Entry into the menu takes place after long pressing ⊖ and entering relevant code. The code is entered by means of buttons ⊖ and ⊕ and confirmed by means of button ↺.

For entry into this menu it is necessary to enter the code „2203“

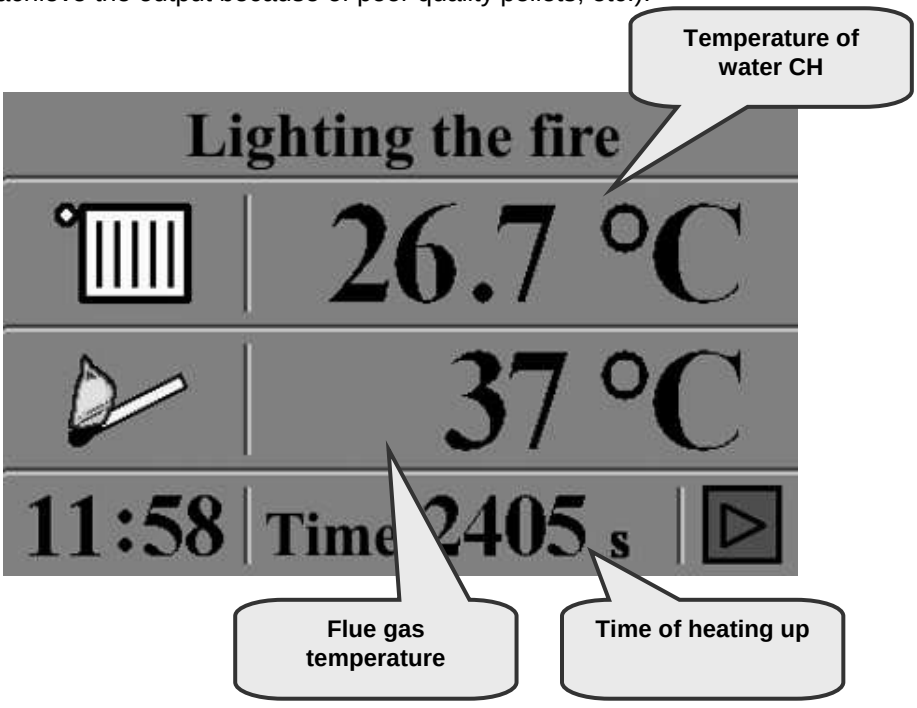
The change of a given value is possible during its flashing by means of keys ⊕ and ⊖. The transition to the next setting after pressing the button of shift ↺. Output from the menu after selection of icon of door and pressing ⊕ or ⊖.

After the selection of boiler we no longer have to set manually the values of fan and feeder.

**Recommended setting**

| Boiler output (kW) | Length of feeding (s) | The initial batch of fuel for ignition (s) | Pause of feeder (s) | Fan power (%) | Fan power when during the ignition (%) | Min. output (%) |
|---|---|---|---|---|---|---|
| 25 | 5,4 | 36 | 5 | 90 | 10 | 8 |
| 16 | 3,5 | 36 | 7 | 65 | 10 | 5 |

We can start heating up. The correction of the boiler output can be set manually in the installation setting (in case of failure to achieve the output because of poor quality pellets, etc.).



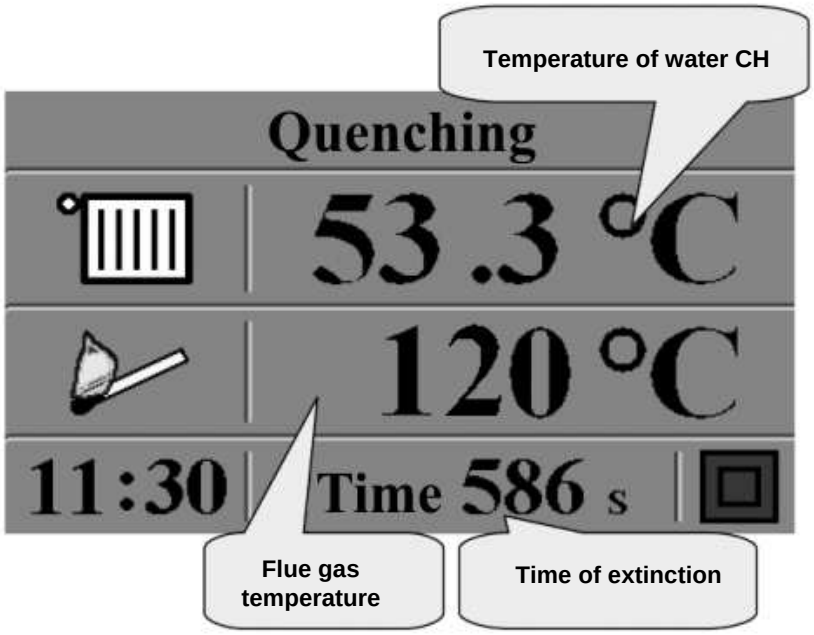
Entry into the mode of heating up takes place after brief pressing the button when the operating is displayed. In case of finding that the pellets in the bowl of burner are already on fire, you can go into normal operation by pressing the key or . In case of omitting the need to interrupt heating up and stopping the boiler it is necessary to briefly press the key , which switches over the driver into the status of switched off regulation.

If within a given time we fail to ignite the boiler (wet pellets, etc.)the display will show the alarm:

Alarm – Lack of fuel

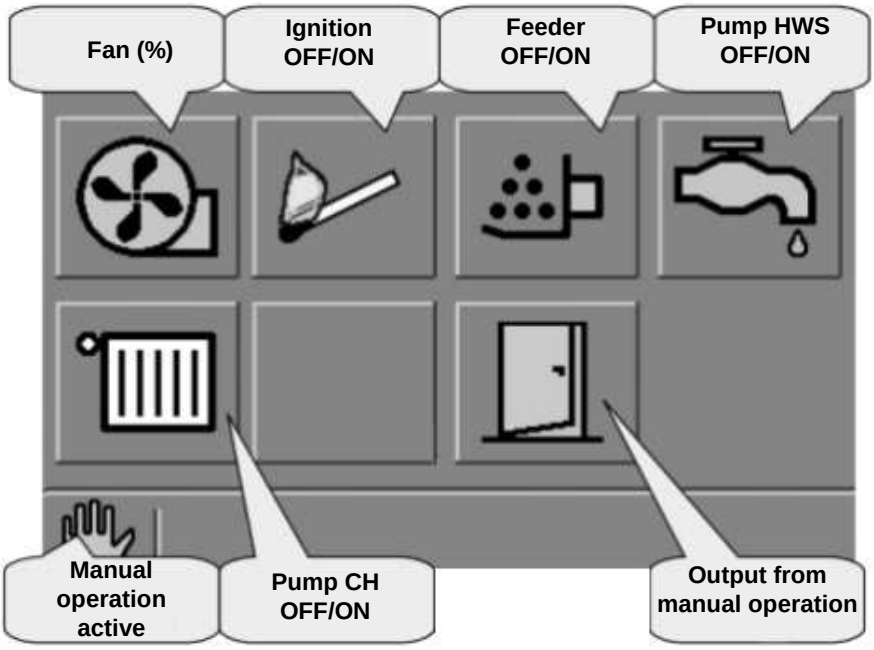
In this case it is necessary to switch off the controller and repeat ignition by pressing the key Enter.

## Extinction of the boiler




The boiler extinction comes after a brief pressing the key during displaying the operating display. In case of finding, that the boiler has become extinct it is possible to go over into the switched off status after pressing the button or .

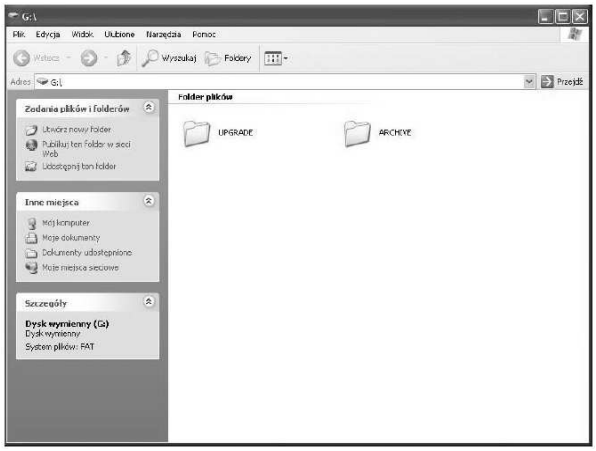
## Manual operation




The mode of manual operation is switched on after a long pressing the key on the operating display of the driver. In the manual mode we can operate all outputs by means of keys (switching off the output) and (switching on the output). The transition between the outputs takes place by means of key .

## Update of control software - for service

Update of software of Puma PID controller is possible after switching off the power supply, dismantling the screen and interconnection of PC with the display panel by means of cable USB.
The controller after connection to the PC will be automatically recognized as an external drive (disc). After the opening of drive in Windows Explorer you must copy the file with new version of the Puma controller software into folder UPGRADE.




Then the driver automatically updates the software and informs the user about the correct execution of the process by displaying the message:

**UPGRADING.....SUCCESS**

**If you copy a wrong file, you receive the message on error. After the update you must disconnect the device from the computer and connect the power supply again.**

**ATTENTION! After carrying out updating will be the individual user setting of controller annulled. It is necessary to re-set manually.**

# 8. States of failure

If a failure occurs, the display shows:

## Alarms of temperature sensors:

Boiler temperature sensor (input T KOC) – damaged sensor

HWS temperature sensor (input T CWU) – damaged sensor

Flue gas temperature sensor (input T DOD) – damaged sensor

## Alarms of output:

Alarm – signalling STB – boiler overheating (safety thermostat switched off), the overheated burner (back flame into the nozzle, a high layer of ash in the burner bowl)

Alarm – lack of fuel, failed ignition

Alarm – damaged pump CH

Alarm – damaged pump HWS

Alarm – damaged ignition

Alarm – damaged fan

**The values of resistance of CH and HW sensors (KTY81-210)**

| Temperature (°C) | Values of resistance of sensors (Ω) |
|---|---|
| -10 | 1495 |
| 0 | 1630 |
| 10 | 1772 |
| 20 | 1922 |
| 25 | 2000 |
| 30 | 2080 |
| 40 | 2245 |
| 50 | 2417 |

| Temperature (°C) | Values of resistance of sensors (Ω) |
|---|---|
| 60 | 2597 |
| 70 | 2785 |
| 80 | 2980 |
| 90 | 3182 |
| 100 | 3392 |
| 110 | 3607 |
| 120 | 3817 |
| | |

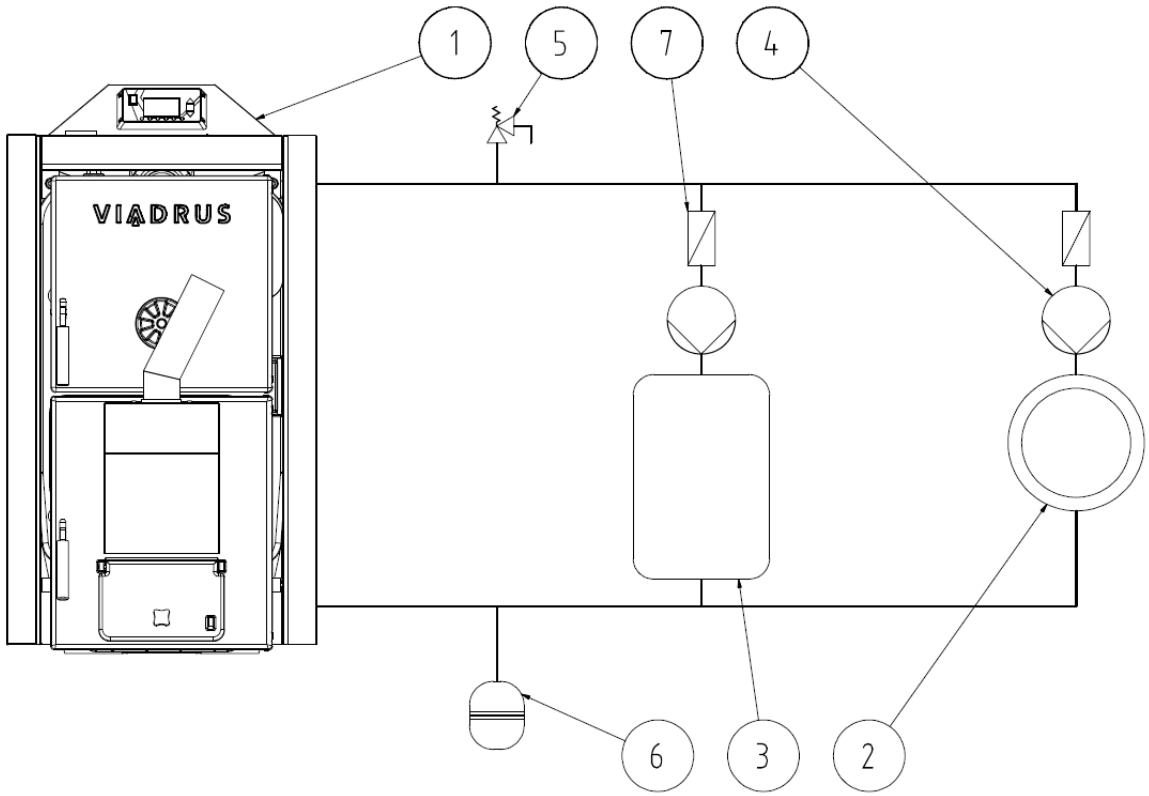
**Values of resistance of flue gas sensor (Pt1000)**

| Temperature (°C) | Values of resistance of sensors (Ω) |
|---|---|
| -10 | 961 |
| -5 | 980 |
| 0 | 1000 |
| 5 | 1019 |
| 10 | 1039 |
| 15 | 1058 |
| 20 | 1078 |
| 25 | 1097 |
| 30 | 1117 |
| 35 | 1136 |
| 40 | 1155 |
| 45 | 1175 |
| 50 | 1194 |
| 55 | 1213 |
| 60 | 1232 |
| 65 | 1252 |
| 70 | 1271 |
| 75 | 1290 |
| 80 | 1309 |

| Temperature (°C) | Values of resistance of sensors (Ω) |
|---|---|
| 85 | 1328 |
| 90 | 1347 |
| 95 | 1366 |
| 100 | 1385 |
| 105 | 1404 |
| 110 | 1423 |
| 115 | 1442 |
| 120 | 1461 |
| 125 | 1480 |
| 130 | 1498 |
| 135 | 1517 |
| 140 | 1536 |
| 145 | 1555 |
| 150 | 1573 |
| 155 | 1592 |
| 160 | 1611 |
| 165 | 1629 |
| 170 | 1648 |
| 175 | 1666 |

| Temperature (°C) | Values of resistance of sensors (Ω) |
|---|---|
| 180 | 1685 |
| 185 | 1703 |
| 190 | 1722 |
| 195 | 1740 |
| 200 | 1759 |
| 205 | 1777 |
| 210 | 1795 |
| 215 | 1814 |
| 220 | 1832 |
| 225 | 1850 |
| 230 | 1868 |
| 235 | 1887 |
| 240 | 1905 |
| 245 | 1923 |
| 250 | 1941 |
| 255 | 1959 |
| 260 | 1977 |
| 265 | 1995 |
| 270 | 2013 |

# 9. Boiler hydraulic diagram

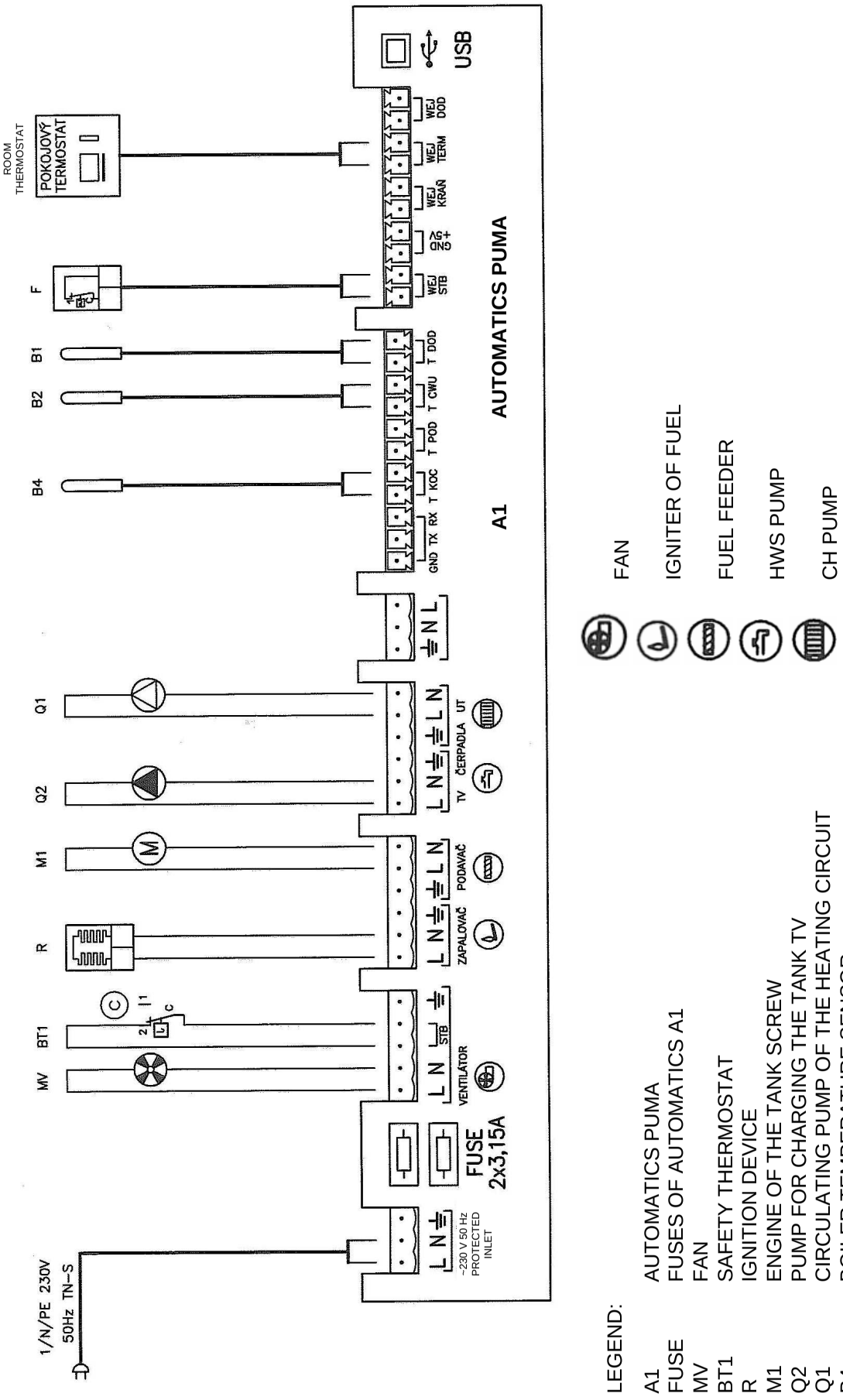



**Legend:**

1 Boiler
2 Heating system
3 HWS reservoir
4 Pump
5 Safety valve
6 Expansion tank
7 Check valve

**Fig. no. 16 Woodpell boiler with HWS reservoir – hydraulic diagram**

# 10. Circuitry




LEGEND:

| | |
|---|---|
| A1 | AUTOMATICS PUMA |
| FUSE | FUSES OF AUTOMATICS A1 |
| MV | FAN |
| BT1 | SAFETY THERMOSTAT |
| R | IGNITION DEVICE |
| M1 | ENGINE OF THE TANK SCREW |
| Q2 | PUMP FOR CHARGING THE TANK TV |
| Q1 | CIRCULATING PUMP OF THE HEATING CIRCUIT |
| B4 | BOILER TEMPERATURE SENSOR |
| B2 | BOILER TEMPERATURE SENSOR |
| B1 | FLUE GAS TEMPERATURE SENSOR |
| F | FIRE PENETRATION FUSE |

FAN

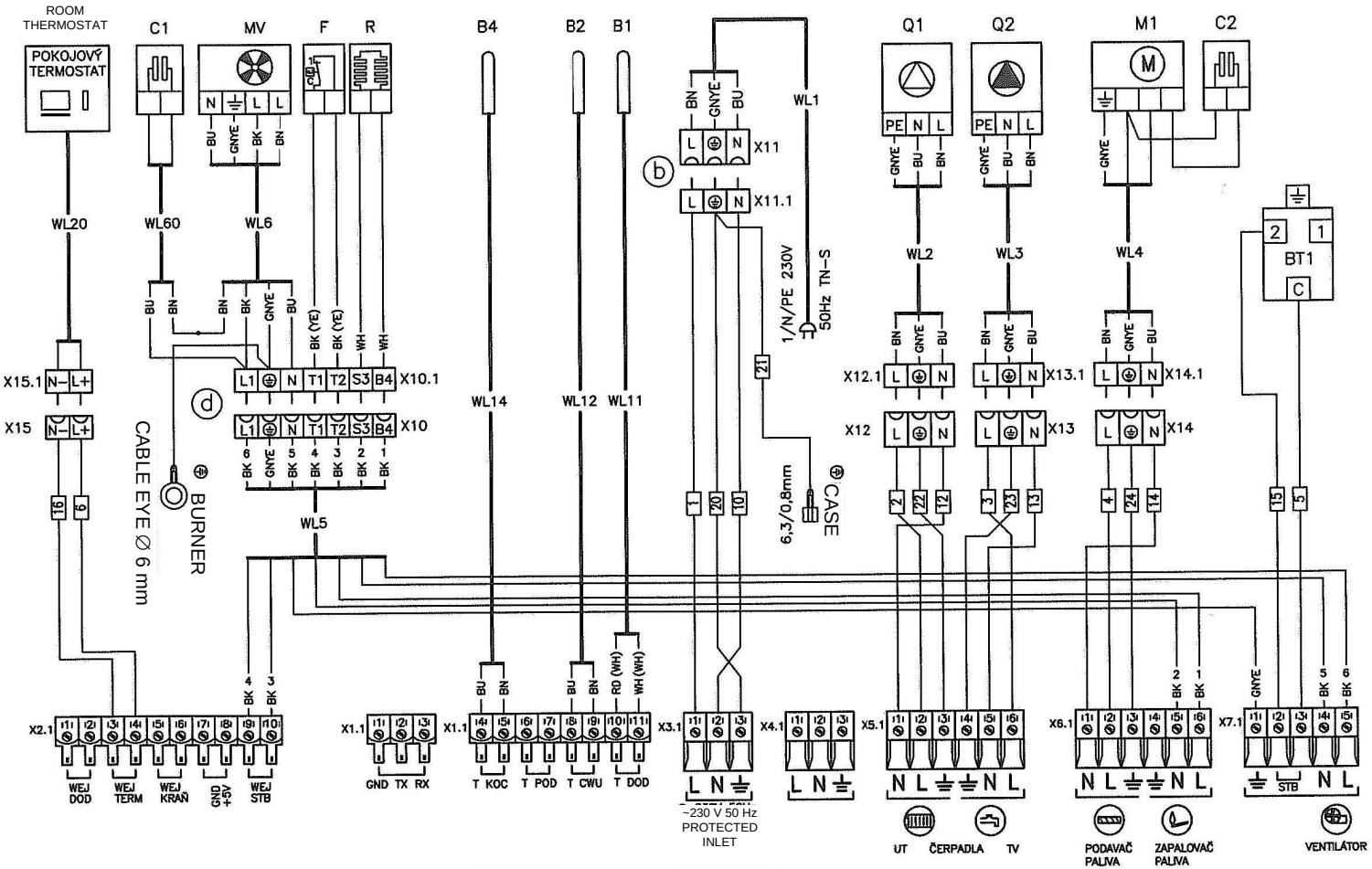
IGNITER OF FUEL

FUEL FEEDER

HWS PUMP

CH PUMP

**Fig.No. 17 Circuit diagram of connection**



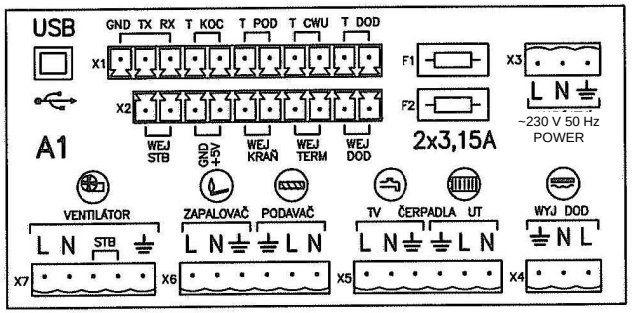




**Fig. no. 18 Circuitry**

Note.:
Connectors X12; X12.1 a X13; X13.1 for pump Q1 a Q2 connect according to ewiring diagram.

LEGEND:

| | |
|---|---|
| A1 | AUTOMATICS PUMA |
| F1, F2 | FUSES OF AUTOMATICS A1 |
| R | IGNITION DEVICE |
| F | FIRE PENETRATION FUSE |
| MV | FAN |
| C1 | CAPACITOR OF MOTOR |
| C2 | CAPACITOR OF MOTOR |
| B4 | BOILER TEMPERATURE SENSOR |
| B2 | BOILER TEMPERATURE SENSOR |
| B1 | FLUE GAS TEMPERATURE SENSOR |
| Q2 | PUMP FOR CHARGING THE TANK TV |
| Q1 | CIRCULATING PUMP OF THE HEATING CIRCUIT |
| M1 | ENGINE OF THE TANK SCREW |
| BT1 | SAFETY THERMOSTAT |

Conductor colour:

| | |
|---|---|
| GNYE | green-yellow |
| GN | green |
| YE | yellow |
| RD | red |
| BK | black |
| BN | brown |
| BU | blue |
| WH | white |

# 11. IMPORTANT WARNINGS

- **The boiler must not be used for other purposes than those it is designed for.**
- **The boiler can only be operated by adults who are acquainted with this operation manual. It is forbidden to leave children unattended near the boiler that is working.**
- **The boiler is not destined for use by persons (including children) whose physical, sensual or mental inability or lack of experience and knowledge prevents from a safe use of the appliance in case they are not under supervision or are not instructed regarding the use of the appliance by a person responsible for their safety.**
- **Children should be watched to make sure that that they do not play with the appliance.**
- **If there occurs the danger of flammable vapours or gases development and their penetration into boiler room or during the works that are accompanied by transient danger of fire or explosion (gluing the flooring materials, painting with combustible paints etc.) the boiler must be put out of operation prior to the start of works**
- **The fuel transport into combustion chamber is watched visually. There is a danger of injury caused by rotating worm shaft.**
- **It is forbidden to use flammable liquids (petrol, oil, furnace oil and others) for making fire in Woodpell boiler.**
- **Possible check of combustion is carried out by opening the stoking door. This method is associated with an increased danger of sparkles dispersion in the boiler room. After the visual check of combustion the door must be immediately properly closed.**
- **During the Woodpell boiler operation it is forbidden to overheat it in any way.**
- **It is forbidden to put any things made of flammable materials on the boiler or within the distance smaller than the safe distance.**
- **When removing the ash from boiler there must not be found any flammable substances within 1500 mm from the boiler. The ash must be collected in a non-flammable ashbin with a cover.**
- **During the operation at the temperature below 60 °C the cast iron heat exchanger becomes dewy which initiates so called low-temperature corrosion that reduces the boiler service life. Therefore we recommend the boiler operation at the temperature 60 °C and higher.**
- **After the end of heating season the user is obliged to clean thoroughly the boiler including the smoke flue and smoke extension piece. Lubricate the pivot bolts and other mobile parts on the boiler with graphite grease. Boiler room must be kept clean and dry.**
- **It is forbidden to interfere with construction and electric installation of boiler.**
- **WARNING! A poor quality of fuel can markedly negatively affect the boiler output and emission parameters**
- **During assembly, installation and operation of the appliance it is necessary to comply with standards that apply in the relevant country of destination.**
- **During assembly, installation and operation of the appliance it is necessary to comply with**

# 12. Maintenance by user

At least 1 hour before cleaning the boiler must be put out of operation (including electrical disconnection)..

1.) It is necessary to be particular about timely refuelling. If only a small volume of fuel is left in the reservoir it must be immediately refuelled so that no “false air” is sucked.

2.) Remove the ash from the combustion chamber and ash-pan drawer regularly. It is necessary to use the protective gloves when emptying the ash-pan drawer.

3.) The boiler cleaning frequency depends on the fuel quality. In case of pellets with ash content not exceeding 0,5 % the cleaning is done in 3 - 4 week intervals. Pellets with ash content 1,5 % and more cause that the boiler must be checked and cleaned once a week or more often as need may be. Boiler cleaning means to remove ash or deposits from the boiler drum (combustion chamber, combustion products lines etc.).

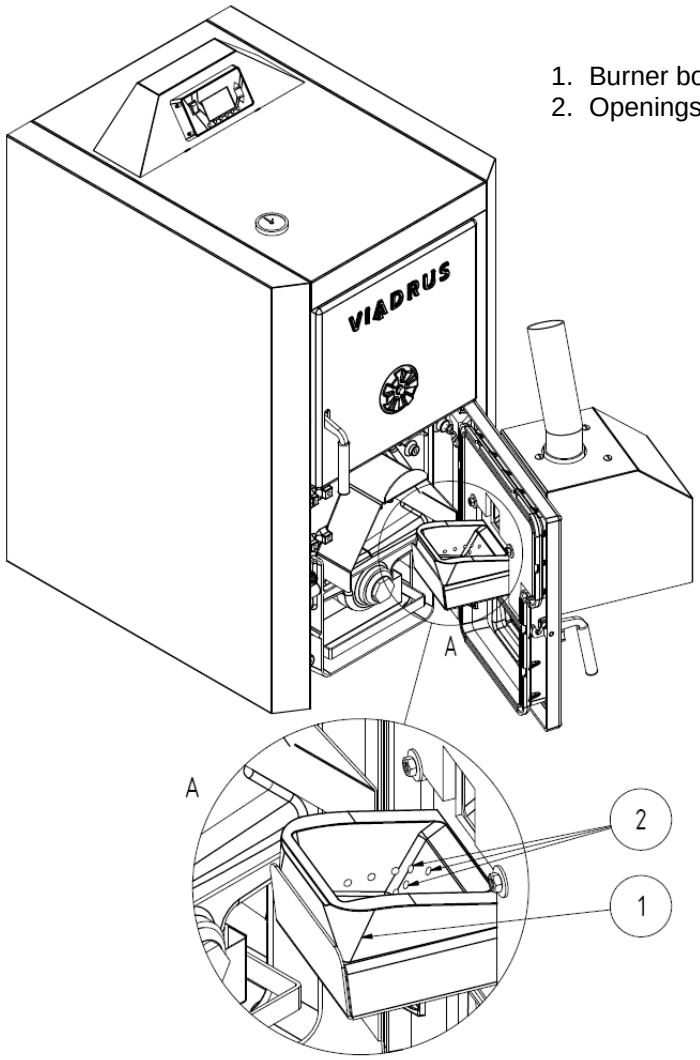
4.) Every 3-4 days (depending on the boiler operation) it is necessary to remove the burner bowl and by tapping it pour out the solidified ashes and check air supply holes clearness! This is influenced by the pellets quality. It is necessary to use the protective gloves. (see Fig.No. 19)

5.) **The boiler operators must not remove the cover from the ventilator or interfere in any other way with these units. It only can be done by a skilled service worker**.

6.) After completing the cleaning operation or any manipulation with conveyor of the fuel reservoir check the correct clamping of the transporting hose by means of hose clips on both ends.

7.) We must be particular about a perfect tightness of the boiler (stoking door, ash-pan door, cleaning cover of the smoke extension piece etc.) in order to keep a moderate overpressure in the combustion chamber during the ventilator operation.

8.) Worm gear units are filled with synthetic oil by the manufacturer therefore their further maintenance is not necessary.




1. Burner bowl
2. Openings for air inlet

**Fig. no. 19 Burner position on the boiler door**

# 13. Guidelines on product disposal after its service life

**VIADRUS a.s. is a contractual partner of EKO–KOM a.s. with the client number F00120649.**
**Packing meets the requirements of EN 13427.**
Taking into account that the product is constructed of common metal materials the individual parts should be disposed of as follows:

- Heat exchanger (grey cast iron) through a company engaged in waste collection and disposal
- Piping distribution system, shell through a company engaged in waste collection and disposal
- Other metal parts through a company engaged in waste collection and disposal
- Insulating materials ROTAFLEX and IZOBREX as the common waste

We recommend to dispose the packages in the following way:

- plastic foil, cardboard cover, use a salvage point
- metal strapping tape, use a salvage point
- wooden base, is designated for a single usage and no longer can be used as a product. Its disposal is subject to Act. 477/ 2001 Coll. and 185/2001 Coll. as amended.

**The take away service can be used (if it is introduced) in case the product has lost its product manufacture qualities and in case the user declares that the product is considered fit for scrap it has to be handled in accordance with the legislation of particular country.**

# 14. Guarantee and liability for defects

**VIADRUS a.s. provides the guarantee:**

- for boiler for 24 months after the date of putting it into operation, but maximally 30 months after the date of despatch from the production plant
- for cast iron boiler drum for 5 years after the date of despatch from the production plant let

The user is obliged to entrust an installation company with the boiler installation and the contractual professional service accredited by VIADRUS a.s., the boiler manufacturer with putting into operation and faults elimination, otherwise the guarantee for a proper boiler function becomes invalid.
Boiler does not require any special service interventions as long as it is operated in accordance with instructions stated in this „Boiler operating and installation instructions“.
„Woodpell boiler quality and completeness certificate“ filled in by the contractual service organization serves as the „Guarantee certificate“.
In case of possible complaint regarding the shell the customer must submit the packing label of the boiler shell. It is placed on the cardboard in which the shell was despatched.

**The user is obliged to service the boiler regularly – see chap. 12.**

**In case the stated instructions are not observed the guarantees provided by the manufacturer will not be acknowledged.**

**The faults must be announced immediately after their detection in writing and by telephone.**

**Guarantee does not apply to:**

- **Faults caused by improper assembly and improper attendance of the product and faults caused by improper maintenance see chap. 12;**
- **Faults and damage caused by failure to observe water quality in heating system see chap. no. 5.1 and 5.4.6 or by using the anti-freeze mixture;**
- **Faults caused by failure to observe instructions stated in this manual;**
- **product damage caused by transport or other mechanical damage;**
- **faults caused by incorrect storage;**
- **Faults caused by boiler operation with unspecified fuel.**

**The manufacturer reserves the right to alterations made within the product innovation that needn’t be included in this manual.**

# Information for customer

| Packaging identification | Assessment reference |
|---|---|
| PE Plastic sacks, folie, corrugated board, iron and plastic fix line | |

| Identification of principal materials used. Paper, Polyethylene, iron, wood |
|---|

**Part 1: Summary of assessment**

| Standard/Report | Assessment requirement | Claim | Note |
|---|---|---|---|
| 1.1 Prevention by source reduction | | YES | |
| 1.2 Heavy metals and | ensure below maximum permitted levels for components (CR 13695-1) | YES | |
| 1.3 Other noxious/hazardous substances | ensure in compliance with (ČSN 77 0150-2, EN 13428) | YES | |
| 2 Reuse | ensure reusability in all terms of the standard for the functional packaging unit (EN 13429) | NO | |
| 3.1 Recovery by material recycling | ensure recyclability in all terms of the standard for the functional packaging unit (EN 13430) | YES | |
| 3.2 Recovery in the form of energy | ensure that calorific gain is achievable for the functional packaging unit (EN 13431) | YES | Iron - NO |
| 3.3 Recovery by composting | ensure compost ability in all terms of the standard for the functional packaging unit (EN 13432) | NO | |

| NOTE Conformity with EN 13427 requires affirmative responses to sections 1.1; 1.2; 1.3 and to at least one of 3.1; 3.2; 3.3. In addition, where a claim of reuse is made section 2 should also record affirmative responses. |
|---|

**Part 2: Statement of conformity**

| In the light of the assessment results recorded in part I above, this packaging is claimed to comply with the requirements of EN 13427. |
|---|

VIADRUS a.s
Bezručova 300
735 81 Bohumín

# Guarantee certificate and Quality & completeness certificate for Woodpell boiler

Boiler serial number .....…… Boiler output .....

User (surname, name) ……..

Address (street, city, postcode) ……..

Telephone/Fax ……..

Boiler matches the requirements

EN 303-5 Boiler for central heating – Part 5: Solid fuel boiler for central heating, with manual or automatic feed and nominal thermal output max. 300 kW: terminology, requirements, testing and marking.

| Measured values | Numerical value |
|---|---|
| Chimney draught (Pa) | |
| Temperature of combustion products (°C) | |

**VIADRUS a.s. provides the guarantee:**

- for boiler for 24 months after the date of putting it into operation, but maximally 30 months after the date of despatch from the production plant
- for cast iron boiler drum for 5 years after the date of despatch from the production plant let

**The conditions for the guarantee validity:**

- **the boiler installation must be carried out according to „Boiler operation and installation manual " by a qualified installation company**
- **the boiler must be put into operation according to „Boiler operation and installation manual " by a contractual service organization accredited by the manufacturer**
- **the defects elimination must be carried out by the contractual service organization accredited by the manufacturer**

**The boiler delivery completeness is guaranteed by the seller.**

**Unfilled guarantee certificate is invalid.**

The user confirms that:

- the boiler adjusted by the contractual service organization did not show any fault during the heating test
- he received the "Boiler operating and installation instruction" incl. the duly filled-out Guarantee certificate and Quality certificate
- he was made acquainted with boiler attendance and maintenance

| | | |
|---|---|---|
| …….. | …….. | …….. |
| Boiler manufacture date | Manufacturer's stamp | Checked by (signature) |
| …….. | …….. | …….. |
| Date of installation | Installation company (stamp, signature) | User's signature |
| …….. | …….. | …….. |
| Date of putting the boiler into operation | Contractual service organization (stamp, signature) | User's signature |

## Annex to the guarantee certificate for the customer-user

| Record of the carried out guarantee and after-guarantee repairs and regular product inspections | | | |
|---|---|---|---|
| | | | |
| **Date of record** | **Carried out activity** | **Contractual service organization (signature, stamp)** | **Customer's signature** |
| | | | |
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735 81 Bohumín

# Guarantee certificate and Quality & completeness certificate for Woodpell boiler

Boiler serial number .....…… Boiler output .....

User (surname, name) ……..

Address (street, city, postcode) ……..

Telephone/Fax ……..

Boiler matches the requirements

EN 303-5 Boiler for central heating – Part 5: Solid fuel boiler for central heating, with manual or automatic feed and nominal thermal output max. 300 kW: terminology, requirements, testing and marking.

| Measured values | Numerical value |
|---|---|
| Chimney draught (Pa) | |
| Temperature of combustion products (°C) | |

**VIADRUS a.s. provides the guarantee:**
- for boiler for 24 months after the date of putting it into operation, but maximally 30 months after the date of despatch from the production plant
- for cast iron boiler drum for 5 years after the date of despatch from the production plant let

**The conditions for the guarantee validity:**
- **the boiler installation must be carried out according to „Boiler operation and installation manual " by a qualified installation company**
- **the boiler must be put into operation according to „Boiler operation and installation manual " by a contractual service organization accredited by the manufacturer**
- **the defects elimination must be carried out by the contractual service organization accredited by the manufacturer**

**The boiler delivery completeness is guaranteed by the seller.**

**Unfilled guarantee certificate is invalid.**

The user confirms that:
- the boiler adjusted by the contractual service organization did not show any fault during the heating test
- he received the "Boiler operating and installation instruction" incl. the duly filled-out Guarantee certificate and Quality certificate
- he was made acquainted with boiler attendance and maintenance

| | | |
|---|---|---|
| …….. | …….. | …….. |
| Boiler manufacture date | Manufacturer's stamp | Checked by (signature) |
| …….. | …….. | …….. |
| Date of installation | Installation company (stamp, signature) | User's signature |
| …….. | …….. | …….. |
| Date of putting the boiler into operation | Contractual service organization (stamp, signature) | User's signature |

VIADRUS a.s
Bezručova 300
735 81 Bohumín

# Guarantee certificate and Quality & completeness certificate for Woodpell boiler

Boiler serial number .....…… Boiler output .....

User (surname, name) ……..

Address (street, city, postcode) ……..

Telephone/Fax ……..

Boiler matches the requirements

EN 303-5 Boiler for central heating – Part 5: Solid fuel boiler for central heating, with manual or automatic feed and nominal thermal output max. 300 kW: terminology, requirements, testing and marking.

| Measured values | Numerical value |
|---|---|
| Chimney draught (Pa) | |
| Temperature of combustion products (°C) | |

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| | | |
|---|---|---|
| …….. | …….. | …….. |
| Boiler manufacture date | Manufacturer's stamp | Checked by (signature) |
| …….. | …….. | …….. |
| Date of installation | Installation company (stamp, signature) | User's signature |
| …….. | …….. | …….. |
| Date of putting the boiler into operation | Contractual service organization (stamp, signature) | User's signature |

VIADRUS

**VIADRUS a.s.**
Bezručova 300 / 735 81 Bohumín / CZ
Tel.: + 420 596 083 050 / Fax: + 420 596 082 822
www.viadrus.cz / info@viadrus.cz

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