



Installation manual for PELLAS®.X
PELLET BURNERS

Free space around the burner

Take care with all local safety regulations for heating boilers for space at least 0.8 m around the boiler. Provide space for maintenance of the burner.

Boiler room should be clean, dry and well ventilated. Supply air to the boiler room should be at least the same amount as the chimney draft. To reduce the risk of fire do not store combustible materials near the burner.

Chimney

Parameters of the chimney should conform to the requirements of the heating unit, which exhaust are carried by the chimney. The chimney can be a ceramic or steel. The chimney should be clean, chimney draught sufficient for operating the burner with a heating device in set power. In the absence of proper chimney draft is necessary to install mechanical fumes exhaust. Before the operation chimney should be checked and picked up by a qualified chimneysweep.

Please note that high chimneys with large capacity need more exhaust heat and the temperature inside the chimney should not be less than 80 ° C, 1 m below the summit to avoid condensation on the top of the chimney. To reduce the internal diameter of the chimney, you can install a steel pipe of adequate diameter. Any advice for a chimney should be sought from the chimneysweep. Strong wind, too high or too low chimney have an influence on the efficiency of the burner and its settings. It is recommended that in such cases, the installation of chimney draught stabilizer, which ventilate chimney and helps maintain a stable draught. If the chimney is too small, then burner might not work properly, in this case there is a need to install a mechanical fumes exhaust.

Installation steps:

1. Mounting the burner in the boiler
Furnace pipe of the burner mounting in montage hole in the boiler and fix with four screws M8. In the case of the burner assembly by a connector, at first fix the connector to the boiler.
2. Montage of fuel chimney (not for X.Mini)
At the top of the burner put a hopper chimney in an upright position and press it to enter properly into its socket.

3. Connection of feeder:

Fix the tee to the flexible fall-tube of a length which allows to place the top part of the feeder not less than 30cm from the vertical axis of the burner batch and the second part of the flexible pipe set on the vertical pipe of chopper chimney. Place the bottom part of the feeder pipe in the container for fuel, remembering that the hole draws granules was directed upwards.

WARNING! Feeder should be positioned relative to the floor at an angle not bigger than 45°.

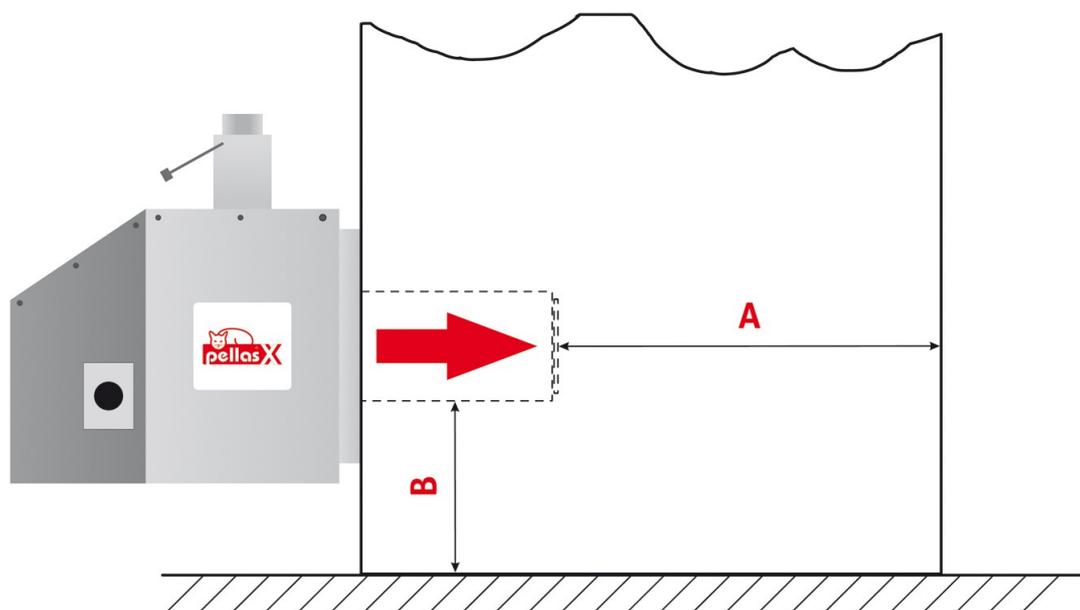
4. Fill up the fuel tank. Certificate of fuel should be available by the seller. Humidity of pellet should not exceed 12%, ash content not more than 1.5% and the amount of free sawdust below 3%.

5. Connect the feeder with burner by electric power cable from the feeder by placing the plug in the appropriate slot on the controller.

6. **WARNING!** If the furnace or boiler does not have its own security STB, then you must mount the capillary sensor in the shell of the boiler water leg with a temperature sensor of the boiler.

7. Connecting the controller

Fix cover with the controller by screws on the isolated wall of boiler or on wall in boiler room, multicoupler cord plugged into an appropriate slot located on the burner.



WARNING! When mounting the burner in the boiler, which has no external thermal isolation at the point of attachment, use an isolating pad protecting the burner from the influence of the temperature of the boiler.

Table

Type of burner	Dimension A (minimum)	Dimension B (minimum)
Pellas®X.Mini	200 mm	60 mm
Pellas®X.40	250 mm	100 mm
Pellas®X.70	270 mm	120 mm
Pellas®X.150	400 mm	140 mm
Pellas®X.250	600 mm	170 mm
Pellas®X.350	800 mm	220 mm

WARNING! Too small distance between the pipe and base of the furnace/boiler (dimension B) can causes damage to the external pipe of burner.

Start of the burner

Before the installation and operation of the burner is required to clean thoroughly flue and boiler, which will be connected to the burner, check that the heating system is a sufficient amount of liquid and that spray pan works properly.

- The burner is designed for dry biomass such as "pellet" in boilers operating in an open system of central heating.
- The burner must be absolutely neutralize electrically and connected to the zero setting of the pin 230 V AC.
- The electrical installation must be done in accordance with applicable regulations and safety rules.
- The electrical installation must be in accordance with applicable regulations and safety rules. The electrical system supplying the burner must be made in TN-S system and protected with residual current 6A/30mA. For performing the installation must be responsible qualified electrician.
- Installation of the burner must be performed by authorized by PHU "Isol" (Producer) installer with authorize.

Settings.

1. Fill fuel feeder (continuous for minimum 1 hour)
2. After filling up the feeder restart it for 15 minutes
3. Weigh scattered during 15 minutes fuel, then multiply that value by 4
4. In the "burner / SERVICE / fuel test" menu fill in calculated amount
5. Depending on the type and quality of fuel, fill in a fuel calorific value "Burner/ Service / Value. Heating fuel." (usually it's about 5 kWh/kg)
6. Then set: a loading dose, max and min of feeding and max air
7. Start the device
8. Do an analysis of exhausts and put a correct setting of feeding and the air.

WARNING! - Note that the power displayed in the Burner / STATUS is the value calculated from the value of the fuel and its calorific value, less of the default boiler efficiency (90%).

Please note that the burner should not work constantly to his power rating. To keep the burner in good condition should not exceed 85% of rated power!

Recommended parameters of exhausts

Type of burner	CO (ppm)	O ₂	Required draught
Pellas [®] X.Mini	100-300	8-10 %	15-20 Pa
Pellas [®] X.40	20-150	5 – 8 %	15- 25 Pa
Pellas [®] X.70	20-150	5 – 8 %	20 – 40 Pa
Pellas [®] X.150	20-150	5 – 8 %	30 – 50 Pa
Pellas [®] X.250	20-150	5 – 8 %	40 – 65 Pa
Pellas [®] X.350	20-150	5 – 8 %	40 – 80 Pa

WARNING! Remember not to exceed the maximum oxygen! This can damage external pipe and the furnace of burner.

In case of problems in the flow of exhaust gases through the boiler and the problems of obtaining higher power, is recommended for installation of fumes exhaust.



Operation

Before starting the burner check all connections and connect the burner to the feeder. Check all screws clamped the burner and thermal seal between the burner and boiler. The burner is started by instructions after connecting into electric network by power lead with plug set to zero.

To ensure correct operation of the burner, depending on the quality of burned fuel, clean the inside of the pipe furnace with carbon deposits and slag. After the warranty period, and then once a year to control the technical condition of the burner by an authorized technician.

WARNING! The external pipe should be periodically (depending on the amount of ash in the fuel) - the best once a month - remove from the burner to clean the ash.

Remember also to clean the nozzles located in a furnace pipe.

Before off the power user should carry out the blanking of burner.