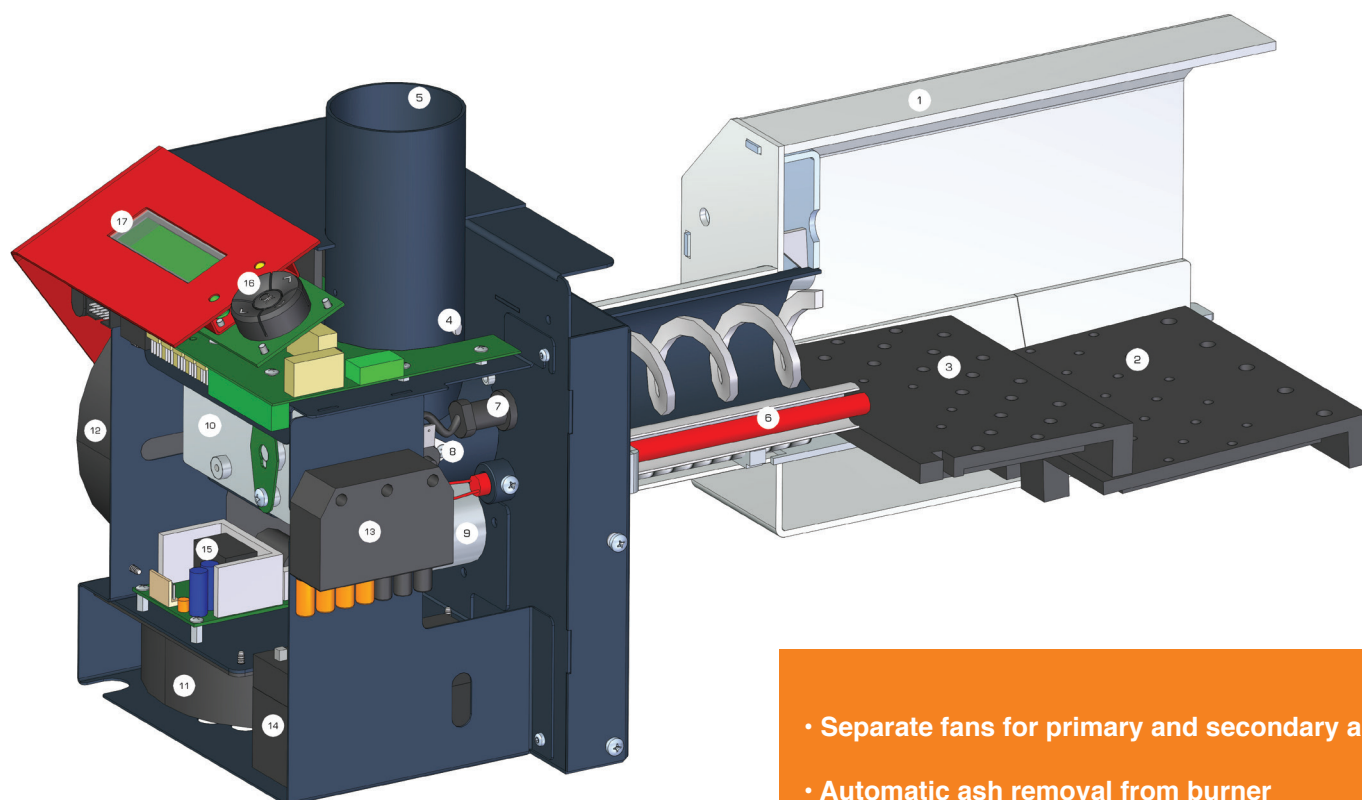# NEW pellet burner **PV 50b**
# with self-cleaning system

1. Burning chamber
2. Moving grate
3. Grate
4. Fuel level sensors
5. Fuel inlet
6. Ignitor
7. Flame sensor
8. Safety thermostat
9. Grate moving motor

10. Feed screw motor
11. Primary fan
12. Secondary fan
13. Plugs
14. Backup battery
15. Power supply
16. Keyboard
17. Display

- **Separate fans for primary and secondary air**

- **Automatic ash removal from burner**

- **Very low electric power consumption**

- **Integrated draft sensor**

- **Replaceable burning chamber components**

- **Back-up battery**

These third-generation of Pelltech pellet burners, PV 50b, serve as an effective and inexpensive solution to use in different heat demanding systems (fully compatible with oil boilers, steam boilers, bakery ovens etc). Thanks to self cleaning system this burner is almost maintenance free and is able to burn also lower quality wood pellets. Installation of PV 50b is incredibly easy, for that is used an ordinary 90mm oil burner flange and common/standard oil burner plugs. Having a multiple safety devices, high efficiency and very good burning quality, this burner is in accordance with all stated European standards.

Pelltech OÜ is active in pellet burner field since 2005 and today we are the biggest pellet burner manufacturer in Baltic countries. Pelltech engineers and produces pellet burners in capacity range from 20kW to 1 MW.
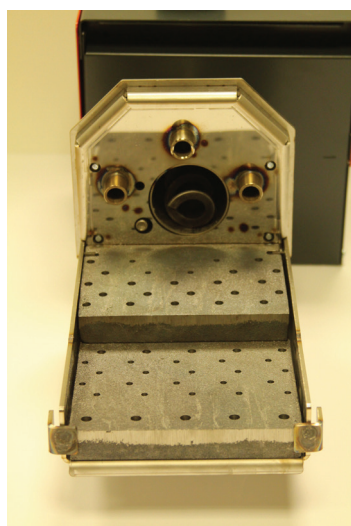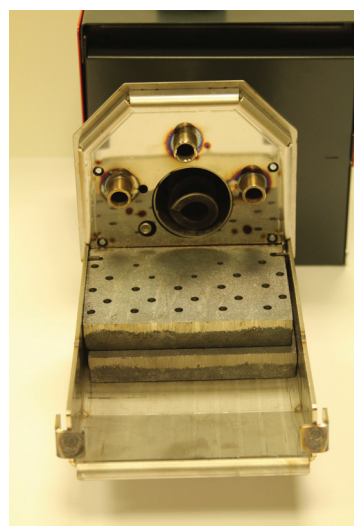
Wood pellets are biomass products- natural, environmentally friendly, renewable fuel resource made from sawdust. The quantities of carbon dioxide from combustion are equal to the quantity the tree uses when it grows.

## Efficiency

- **Low power consumption**
- Burning efficiency **99%**
- **Hold flame option:** gives a possibility to hold small flame in burning chamber and saves energy by avoiding several ignitions
- Integrated **draft monitoring system** with possibility to control flue gas fan
- **Lambda** sensor ready

## Burning quality

- **Two separate fans** for primary and secondary air improve burning quality, especially at lower power levels
- **Single-point ignition**: all ignition energy is concentrated to one point for fast and fumeless ignition
- **Dosing with internal auger** insures unvaried fuel transportation into the burning chamber and thereof also equable burning
- **Fan speed control** regulates and measures both fans rotations to assure exact air distribution in all output levels
- **Intelligent modulating output:** the burner chooses required output level according to need of warmness
- Using a **hot burning chamber** insures absolute burning, small emissions and high efficiency
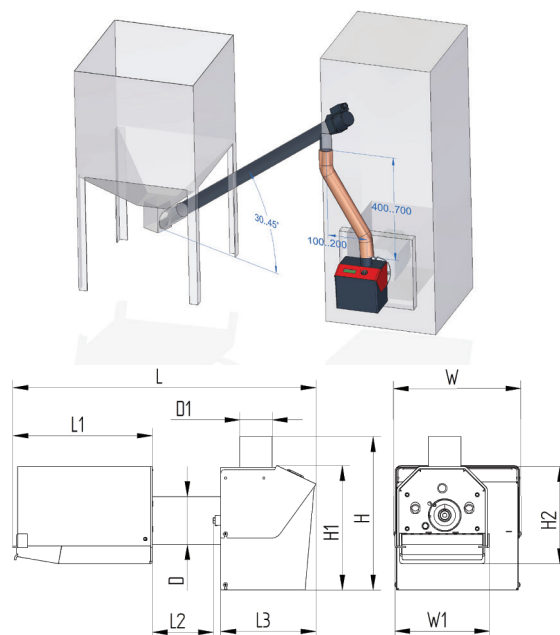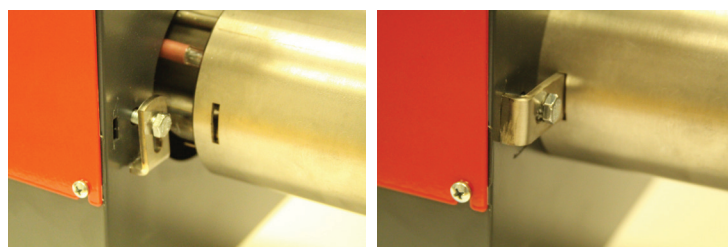
## Safety

Protection against back-burning:
- **Safety thermostat**
- Periodic work of **internal auger** in standby mode
- **Melting hose**
- **Backup battery** insures that in case of power interruption the burner cleans up to avoid backburning
- Integrated **draft sensor** will stop the burner in case of overpressure in burning chamber
- **Error output relay:** in case any external device is connected, relay switches it on/off in case of burner error

## User friendlyness

- **Interface:** the burner gives clear information about the current state and shows setup parameters on the screen
- **Compatibility with oil boilers:** the burners are compatible with oil boilers by mounting and by electric connection
- **Fuel level control:** because of the dosing internal fuel amount, it is not necessary to measure the productivity of external auger or to fill the auger manually after the burner runs out of fuel
- **Automatic ash removal:** periodically cleans burning chamber
- **Replaceable** burning chamber components. Possible to chance single part of the burning chamber, rather than whole burning chamber, reducing maintenance costs
- **Fuel consumption counter:** counts the total amount of fuel burned with this burner and shows also fuel amount burned in certain time period
- It is possible to add **temperature sensor of boiler**





### PV 50b

| | | | |
|---|---|---|---|
| **Capacity:** | 20-50 kW | **CO** | 50…150 ppm |
| **Power levels:** | 11 | Dimensions : | |
| **Fuel:** | Wood pellets | **Lenght (L)** | 560 mm |
| **6-8mm** | | **Width (W)** | 235 mm |
| **Ignition:** | Electrical, 500W | **Height (H)** | 285 mm |
| **Power supply:** | 230V, 50 Hz, 3A | **Weight** | 17 kg |
| **Power** | | | |
| **consumption:** | 10 W @  20 kW | Burning chamber dimensions : | |
| | 38 W @ 50 kW | **Lenght (L1)** | 255 mm |
| | 3 W @ standby | **Width (W1)** | 175 mm |
| **Ash removal** | Automatic | **Height (H2)** | 180 mm |
| **Noice level** | 58 dB | | |
| **O₂** | 5-8% | | |