# Why Pelltech?

All Pelltech products are designed with ease of use as a priority. This means that our burners are compatible with a wide variety of your existing oil or wood boilers, steam generators, dryers, evaporators etc. Installation and setup of Pelltech burners is simple and straightforward. Once up and running, our burners require low maintenance thanks to fully automated control system.

Pelltech is driven by the ambition to continuously improve already released products as well as invest in development of new burners and boilers. At Pelltech we aim to thrive in the increasingly growing renewable energy market by offering the best solutions for our clients.

INDUSTRIAL

Pellet burning equipment for technological enterprises in various fields such as food and furniture manufacturing

pelltech

reliable

sustainable

renewable

flexible

responsible

affordable

experienced

leading
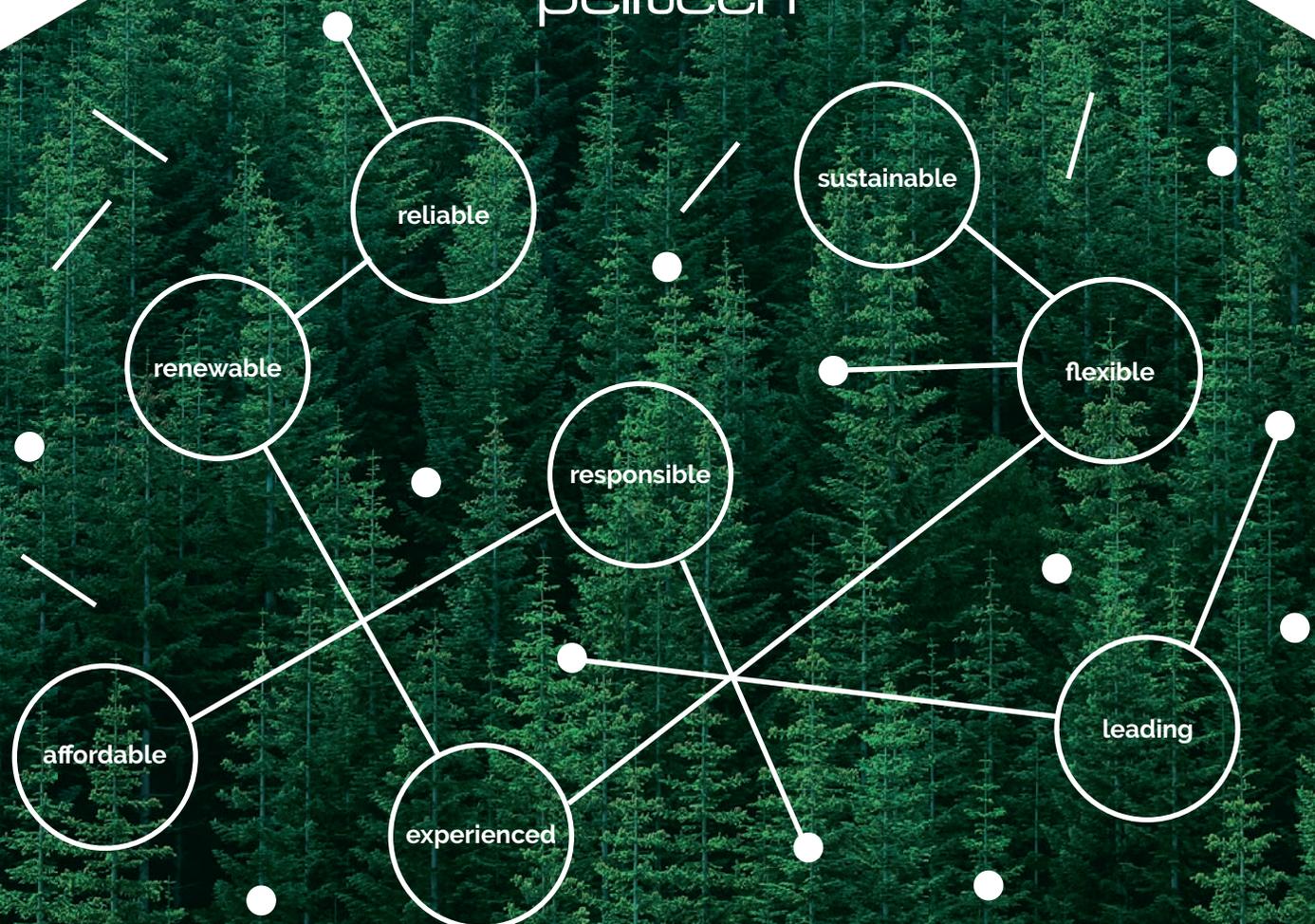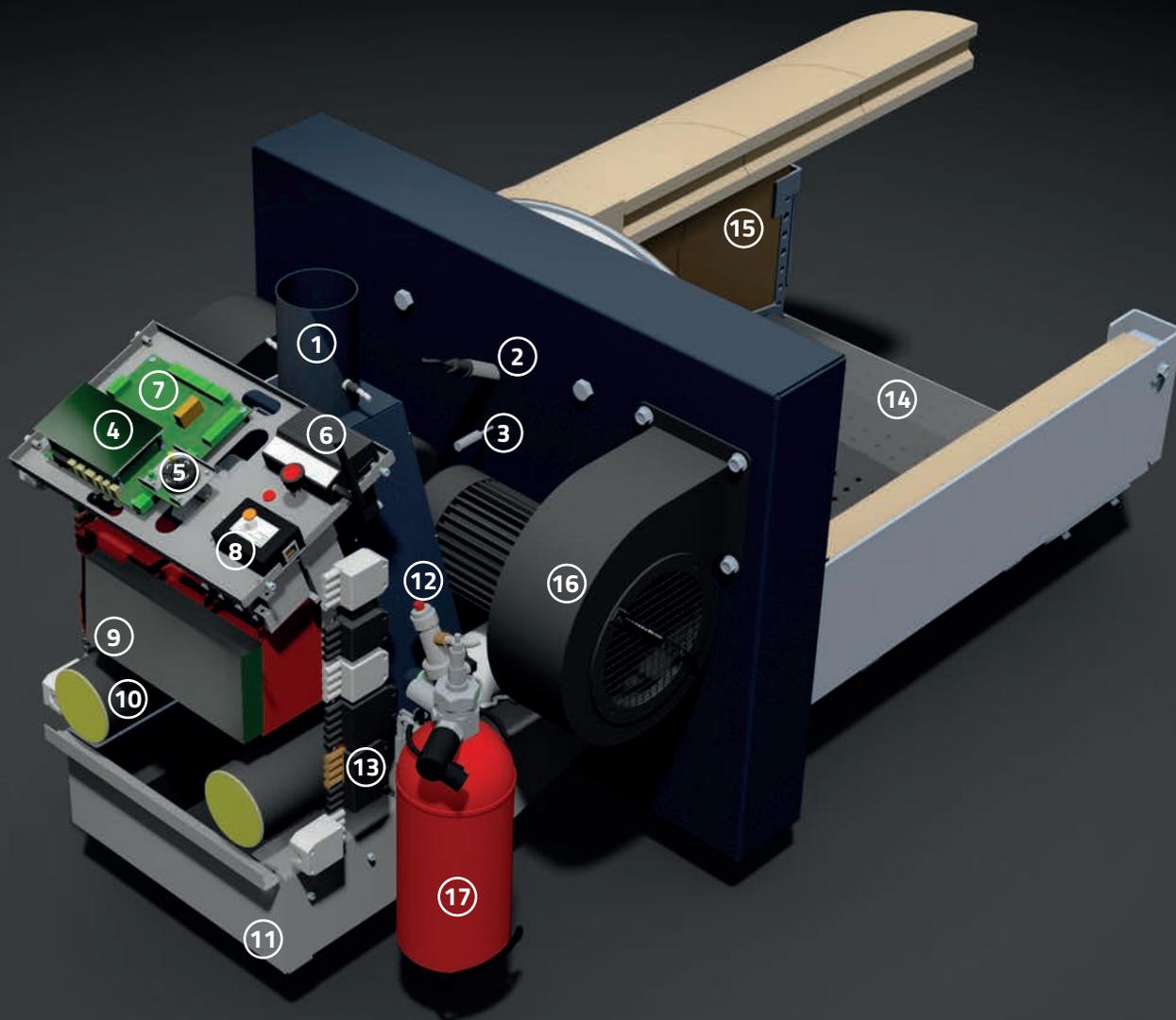
PV 700

1. Pellet inlet
2. Flame sensor
3. Tile t° sensor
4. LCD display
5. Keyboard
6. GSM/GPRS modem
7. Control board
8. Network module
9. Fan inverters (3x)
10. Feed screw motor
11. Backup battery
12. Water sprinkler
13. Power connectors
14. Moving grates
15. Chamber tiles
16. Secondary fan
17. Powder sprinkler
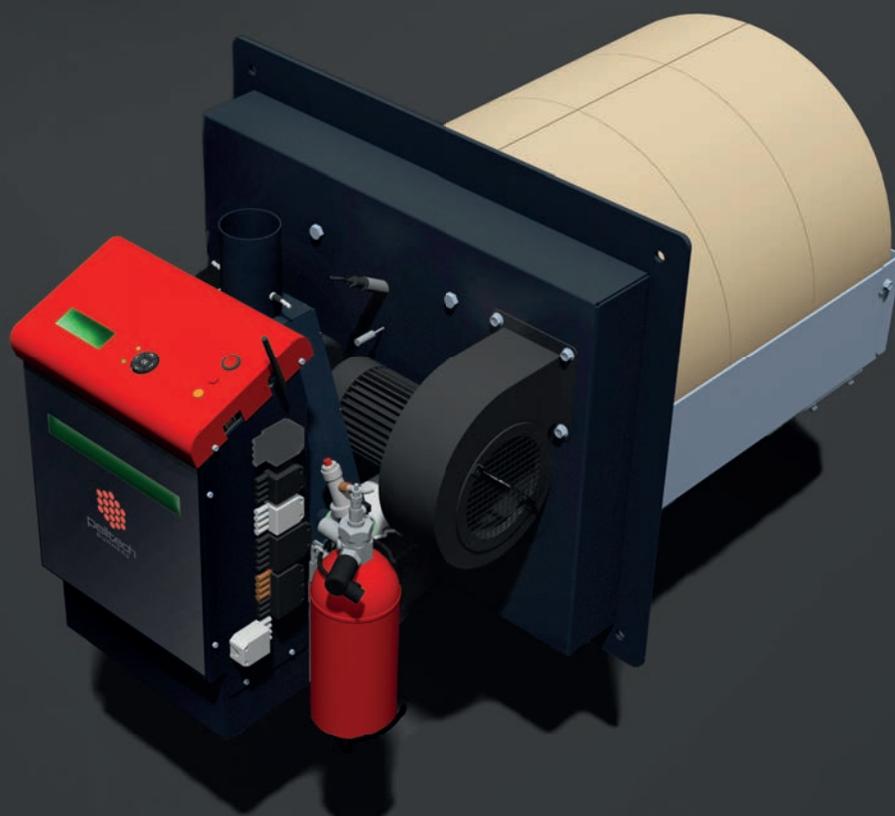
	Unit	PV 250	PV 350	PV 500	PV 700	PV 1000	PV 1500
Fuel		wood pellets 6..8 mm, ash content ≤1,5%					
-Maximum fuel consumption	kg/h	52	73	104	146	208	312
Power output							
-Burning at maximum	kW	250	350	500	700	950	1500
-Burning at minimum	kW	70	100	160	200	250	250
-Heat up	kW	25	30	40	50	70	150
-Holding flame	kW	5	6	12	12	12	20
Boiler requirements							
-Minimum furnace diameter	mm	600	600	700	700	800	900
-Minimum furnace length	mm	1200	1700	2000	2200	2500	3000
Flue gas							
-Maximum amount (at 200°C)	m³/h	625	900	1400	1800	2500	3900
-Optimal O_2 concentration	%	4...6	4...6	4...6	4...6	3...6	3...6
-Required chimney diameter *	mm	≥200	≥200	≥250	≥300	≥350	≥400
Power supply		230 VAC	3x400 VAC, 3A	3x400 VAC, 6A	3x400 VAC, 6A	3x400 VAC, 10A	3x400 VAC, 10A
Electrical power consumption							
-Igniting	W	440	800	800	800	1600	1600
-Standby	W	7	20	20	20	20	20
Overall dimensions (L/W/H)	mm	734/450/450	981/650/530	1203/750/600	1203/750/600	1306/800/680	1429/890/780
Pellet inlet diameter	mm	76					
Burning chamber dimensions (L2/W2/H2)	mm	458/358/388	500/371/349	600/528/457	600/528/457	702/632/546	815/768/656
Burner weight (netto)	kg	80	95	165	165	230	300

*With flue gas fan

TECHNOLOGY

- **Clear interface:** burner gives relevant information about the current state and shows setup parameters on the display
- **Single point ignition** – ignition is fast and requires little power
- **Rotation measurement and control** of blower fans
- **Precise draught control** with fluegas fan and draught sensor
- **Lambda control** for high burning efficiency
- **Hot burning chamber** for complete burning and low emissions
- **Automatic ash removal** periodically cleans the burning chamber
- **Fuel amount counter** keeps track of the total amount of fuel burned and indicates the fuel consumption over a certain period of time
- **Burner internet connection** for remote control, data logging and firmware updating
- **Multiple operation modes** - ON/OFF, Hold flame, Modulating etc.
- **Hold flame mode** enables a faster startup of the burner
- Holding temperature in **modulating mode** and forecasting temperature changes ensures stable operation also for industrial systems with variable heat demand

SAFETY

- Integrated **back up battery** enables safely to empty the burner's internal tube from pellets, into the burning chamber, in case of unexpected power outage
- **Periodic work of the internal auger** in standby mode and in error condition
- **Flame retardant melting hose** avoids direct connection between burner and fuel storage
- **Draught sensor** locks the burner in case of draught dismiss in burning chamber
- **Water or powder fire extinguishers** with safety pressure switch are integrated in burners starting from 350 kW
- **Independent safety circuit** locks the burner in case of any abnormalities

PK1000

This highly efficient 3-pass boiler is specially designed for pellet burners. The 6 separate cleaning mechanisms guarantee long maintenance intervals. When boiler needs maintenance once in three months, it is a fast and trouble-free process as its construction allows very easy accessibility to the boiler inside. Thanks to its compact size it can be installed into sea containers or any similar space–saving buildings.
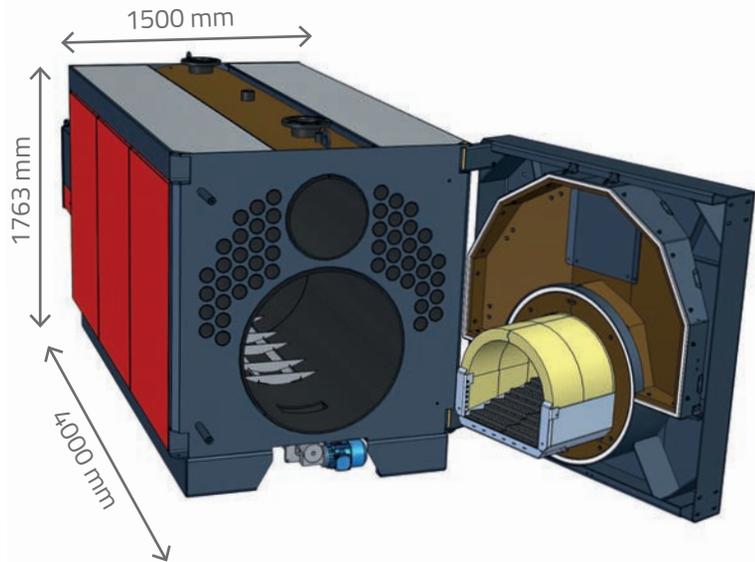

	Unit	PK 1000
Mains supply		3 x 400 VAC, 50Hz
Rated thermal output	kW	940
Rated thermal load	kW	990
Boiler class according to EN 303-5		5
Permissible operative pressure	bar	6
Testing pressure	bar	9
Boiler water volume	L	1850
Boiler weight	kg	3576
Boiler overall dimensions WxDxH	mm	1500x4000x1763
Boiler body length	mm	2816
Burning chamber length	mm	2700
Burning chamber diameter	mm	820
Pressure drop at flow rate 34 m³/h	kPa	35
Hot gas pressure drop	Pa	400

	Unit	PK 1000
Electrical consumption at ignition PV 1000 / PV 700	W	1700/900
Electrical consumption during work PV 1000 / PV 700	W	480/380
Electrical consumption at standby	W	20
Heat exchange surface	m²	42.8
Number of turbulators	pcs	50
Flue gas outlet	Ømm	400
Boiler flow and return connections	pcs	2xDN125/PN6
Safety valve connections		1 x R2''
Required safety valves		2 x R2''
Flue gas temperature at rated output	°C	150...180
Flue gas amount PV1000 / PV700	m³/h	<2500/<1750
Efficiency at < 66 % power 75/60 °C	%	94
Efficiency at > 66 % power 75/60 °C	%	93
Door opening direction		To left/to right

Container boiler houses

These conveniently integrated plug-and-play designs offer a solution for organisations where indoor space for a boiler room is limited. Pelltech Container Boiler Houses are ideal when undertaking a complicated and time-consuming boiler house building project is not a sustainable option. Our fully equipped boiler houses are built in Estonia and can be shipped to you anywhere in the world. We offer 20' standard sea containers, internally insulated and customized as boiler houses, including a boiler, burner, auger, silo, flue gas fan, ash cyclone, ash container and chimney. All necessary pumps and valves are included and installed, including all electrical connections, making the boiler house ready for start-up once delivered to your site. We build plug-and-play solutions from 100 kW up to 1 MW.