

# PelleTech<sup>®</sup>

## *Small scale remote heating*

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*Small - scale remote heating applications with biomass boilers  
**PelleTech IDRO** in Hospitals, Clinics, Rehabilitation Centers  
School units, Residential complexes.*



# Industrial Heating Units **PelleTech IDRO**

150 kW up to 1.150 kW



## Fossil fuels & Biomass

Cost of thermal megawatthours per type of fuel in Greece.

### Diesel



MWhthD = 109,918 € with price 1290 €/tn  
\* ( Price of March 2022 )

### Natural Gas



MWhthG = 96,659 € \* ( Price of February 2022 Gas  
Business T3 )

### Biomass



MwhthB = 65 €

Camino Design PelleTech IDRO Biomass Boilers set new standards for the convenience, efficiency and safety of heating with biomass fuels.

## LAMBDA SENSOR

The Lambda sensor ensures consistently high efficiency in the supply of oxygen for primary and secondary combustion. At the same time, it contributes to the minimization of harmful emissions and the protection of the environment.



## BACK BURN PROTECTION DIAPHRAGM

The diaphragm protects the flame from returning to the fuel tank. In the event of a power failure, there is a spring on the servomotor which ensures that the diaphragm remains closed.



## ΑΝΑΦΛΕΚΤΗΡΑΣ ΘΕΡΜΟΥ ΑΕΡΑ

- ✓ Energy savings over 88%
- ✓ Effective ignition control
- ✓ Silent system
- ✓ Built-in device for fast and safe ignition
- ✓ Functional safety thanks to the electronic protection of the heating element
- ✓ Blower and heating element can be controlled separately
- ✓ In accordance with European safety requirements.



## DOUBLE COMBUSTION AIR SUPPLY ZONE

The dual secondary air supply zone ensures optimal mixing in the exhaust gases. In addition, the primary combustion air zone ensures maximum combustion quality and excellent efficiency.

## MOVING GRATE TECHNOLOGY

Multi-stage reciprocating burner with the ability to burn materials even with humidity exceeding 35%. The specially shaped fixed plates of the burner are made in such a way as to lift the moving parts of the burner (nails), resulting in breaking and avoiding the formation of crust (clinker) on the surface of the grill as well as the further enrichment of the fuel with air.



## AUTOMATIC ASH EXTRACTION

Pure combustion leaves only the minerals contained in the fuel as ash. The screw removes it from the combustion chamber and leads it to the ash container.



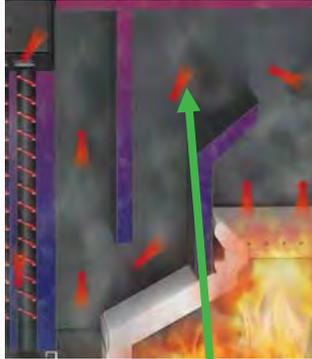
Smartphone application for remote control.



## COMBUSTION CHAMBER TEMPERATURE SENSOR

The main advantages of the combustion chamber temperature sensor are:

- Precise control of the combustion chamber temperature and protection of materials from thermal stress.
- Lower fuel consumption as the boiler control unit responds faster to phase shifts during combustion.
- Smoother and faster ignition.
- Better combustion supervision according to the type of fuel.



## AUTOMATIC CLEANING OF ALTERNATOR

The alternator swirlers with their periodic movement achieve the cleaning of the flame tubes.

In addition, they delay and swirl the flow of exhaust gases, giving the possibility of a better exchange of heat between the exhaust and water.



## SAFETY THERMOSTAT

The safety thermostat ensures that always the water temperature of the boiler will remain below 95°C.

## BOILER SUPPLY SAFETY THERMOSTAT

In the event of a rise in the boiler supply temperature > 110 °C, the safety thermostat is activated, which stops the operation of the primary and secondary combustion air blowers.

At the same time, it allows the operation of the exhaust motor ensuring that no flame will return to the supply channel.



## ALTERNATOR DESIGN WITH VERTICAL FLAME TUBES

4-way vertical flue alternator with integrated swirlers that ensure maximum exhaust deceleration time by increasing efficiency with the minimum possible exhaust emissions.

The design of the flue gas flow from the combustion chamber to the alternator tubes reduces the thermal stress received by the first row of swirlers



## HIGH CHROME CONTENT GRATES

High chrome content grates withstand higher temperatures compared to grates made of Gg20 cast iron.

In addition, the special design allows better diffusion of primary combustion air while the special shape at the edge of the grate allows the burner to move in 2 directions.



## REFRACTORY CONCRETE COMBUSTION CHAMBER WITH HIGH ALUMINA CONTENT

The combustion chamber is made of an extremely heat-resistant fireproof concrete, it stores heat for a very long time, which makes it easier to ignite the fuel reliably.



## Clinic for people with special needs Champetieres, France

- 👤 Clinic for people with special needs
- 📍 Champetieres, France
- 🔥 PelleTech Idro 200
- 🌳 Woodchips
- ▶ Replacement of old gas boilers with a biomass boiler.
- ▶ Provision of heating and useable hot water for the clinic.

## Our Projects



### Hospital Eygurande, France

- 👤 Hospital
- 📍 Eygurande, France
- 🔥 PelleTech Idro 500
- 🌿 Woodchips
- ▶ Replacement of old oil boilers with a biomass boiler.
- ▶ Provision of heating and useable hot water for the hospital.





### Hospital Portugal

👤 Hospital

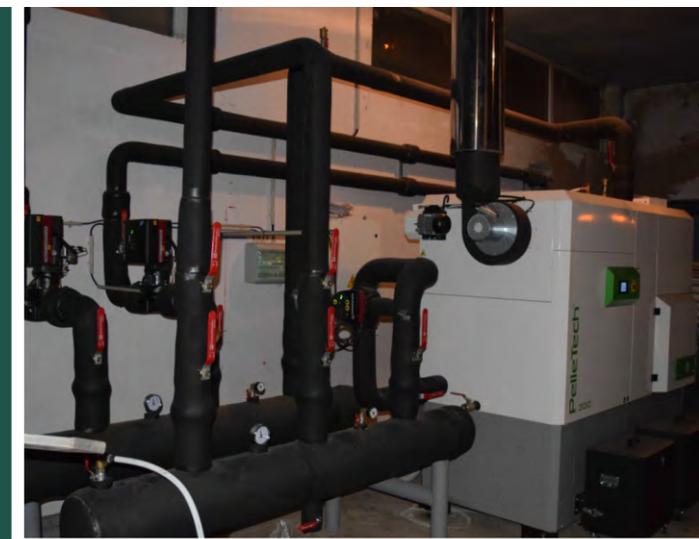
📍 Portugal

🔥 PelleTech Idro 300

🌿 Woodchips

▶ Replacement of old gas boilers with a biomass boiler.

▶ Provision of heating and useable hot water for the hospital.





### Nursing Home Casa Di Pavo Portugal

👤 Nursing Home Casa Di Pavo

📍 Portugal

🔥 PelleTech Multiauto 65-100

📦 Pellet

- ▶ Replacement of old oil boilers with a biomass boiler.
- ▶ Provision of heating and useable hot water for the nursing home.



## Other applications



### Application of a biomass boiler installed in a container for the sale of thermal energy in a residential complex in France

👤 Pavilion Vert

📍 France - Bondufle

🔥 PelleTech IDRO 500

🌐 Compte-r

🌱 Woodchip

▶ Replacement of old oil boilers with a biomass boiler.

▶ Provision of heating and useable hot water for the apartments.



## Other applications



### Application of biomass boiler for heating and hot water in an automotive industry in France

👤 Citroën Peugeot Automobiles SA

📍 France - Charleville

🔥 2 X PelleTech IDRO 500

🌐 Compte-r

🌱 Woodchip

- ▶ Replacement of old boilers with 2 biomass boilers.
- ▶ Provision of heating and useable hot water for the industry.



## Other applications



### Application of biomass boiler for heating and hot water in a pig farm in Netherlands

📍 Pig Farm

📍 Netherlands - Boer

🔥 PelleTech IDRO 500

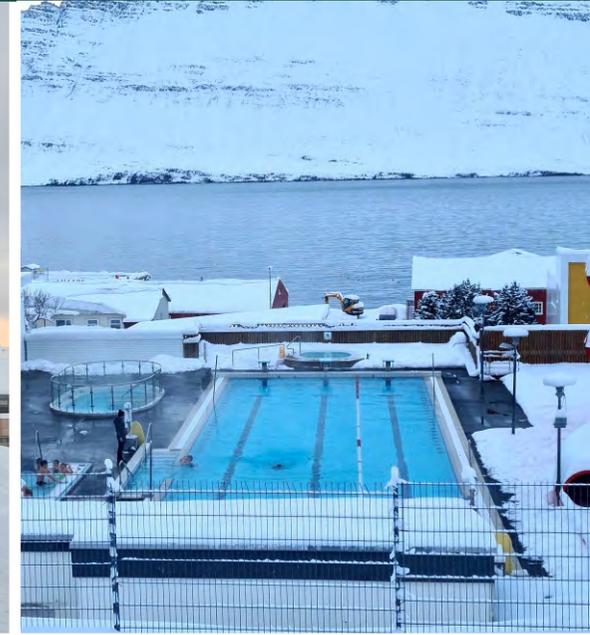
🏢 Indieco Group BV

📦 Pellet

- ▶ Replacement of old oil boilers with a biomass boiler.
- ▶ Provision of heating and useable hot water for the farm.



## Other applications



### Application of biomass boiler for heating and hot water in a School, Swimming pool and Hospital in Iceland.

👤 Verkmenntaskóli Austurlands

📍 Iceland - Neskaupstaður

🔥 PelleTech IDRO 500

🏢 Tandrabretti Ltd

🌿 Pellet

▶ Replacement of old boilers with a biomass boiler.

▶ Provision of heating and useable hot water for the school the pool and the hospital.





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