

# SUSTAINABLE HEATING SOLUTIONS FOR DISTRICT AND LARGE-SCALE HEATING







Leppäkoski 6 MW, fuel: wood pellets



Kuusamo 3 MW, fuel: wood pellets

### **ARITERM - TRUSTED HEATING SOLUTIONS SINCE 1974**

Ariterm is a Finnish pioneer in heating technology, with decades of experience in designing and delivering efficient and environmentally friendly heating plants. From our factory in Saarijärvi, we have delivered over 500 000 boilers and burners, and around 200 heating plants in the power range of 500-6000 kW - all built to last and perform reliably in demanding conditions.

#### WHY CHOOSE ARITERM?

- · Intelligent and fast power adjustment
- · Automatic sweeping
- · Remote control and monitoring
- High efficiency and low emissions

# **GREEN HEAT - WITHOUT FOSSIL FUELS**

Ariterm's bioenergy plants utilize renewable, fossil-free fuels such as wood pellets, agropellets, and wood chips. This means you can produce heat responsibly – with respect for the environment and future generations.

ARITERM - HEAT YOU CAN RELY ON.





# UKRAINE PRODUCES A SUBSTANTIAL AMOUNT OF PELLETS, ENSURING SELF-SUFFICIENCY



# PELLET IS AN INEXPENSIVE AND CLIMATE-NEUTRAL FUEL



# **FOSSIL-FREE PELLET FUEL**

- Renewable, environmentally friendly fuel.
- Densely compressed wood waste
- · No chemical additives.
- High calorific value and easy to handle.

Pellets are an environmentally friendly, domestic and economical energy source, and switching to them significantly reduces greenhouse gas emissions. Pellets have low carbon dioxide emissions and a small overall carbon footprint. Emissions are reduced by 90% when switching from oil to pellets. Using pellets reduces dependence on fossil fuels and has lower energy costs compared to fossil fuels.

Fossil-free and environmentally friendly wood pellets are a renewable source of bioenergy – pellets are made from waste streams from the wood industry. The pellets are pressed from sawdust, cutter shavings, etc. wood pulp into smooth-surfaced cylinders. No chemicals are used in the manufacturing process, but the wood's own lignin is used as a binding agent.

Agropellet is, for example, a pellet pressed from field biomass, which can be used mixed with wood pellets and brings significant cost savings. Plant-based agropellet is a significantly cheaper biofuel than wood pellets. With our devices specially designed for burning field waste, a proportion of 30 % of wood pellets in the fuel mixture is sufficient, which offers considerable savings in fuel costs.

# PELLET FUEL REDUCES EMISSIONS AND COSTS

The burning of wood pellets, like firewood, wood chips, etc., is very clean and environmentally friendly. Of these, wood pellets stand out due to their higher calorific value and their structure, which is excellently suited for automatic dosing. The ash content of wood pellets is very low, only approx. 0.5 %. The pellet burns cleanly – as a wood-based fuel, it does not increase the amount of carbon dioxide in the atmosphere, and therefore does not contribute to the development of the greenhouse effect.

- · Wood pellets are renewable bioenergy
- Pellet is dense and uniform fuel
- · Easy to handle, no dust
- The humidity percentage is less than 10
- · Does not freeze or mold
- The diameter of the pellet is 6 12 mm and the length is 10 - 30 mm
- No chemical substances, the binding agent is the wood's own lignin.

# 1000 kW plant/year

8 760 MWh

- 876 000 l oil
- 1839 600 kg pellets

CO2 reduction (tn)

## 4 000 kW plant/year

35 040 MWh

- 3 504 000 l oil
- 7 358 400 kg pellets

CO2 reduction (tn)

9 425,76

Ariterm Energy Oy produces bioenergy solutions using renewable fuels for industrial companies and energy companies. Ariterm's high-quality, domestic bioheating solutions offer an efficient and reliable way to utilize domestic, renewable, fossil-free energy sources. Heating systems have been manufactured in Saarijärvi, Finland since 1974. We have established our position as a Finnish heating system expert, with the core mission of replacing fossil fuels with bioenergy.



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