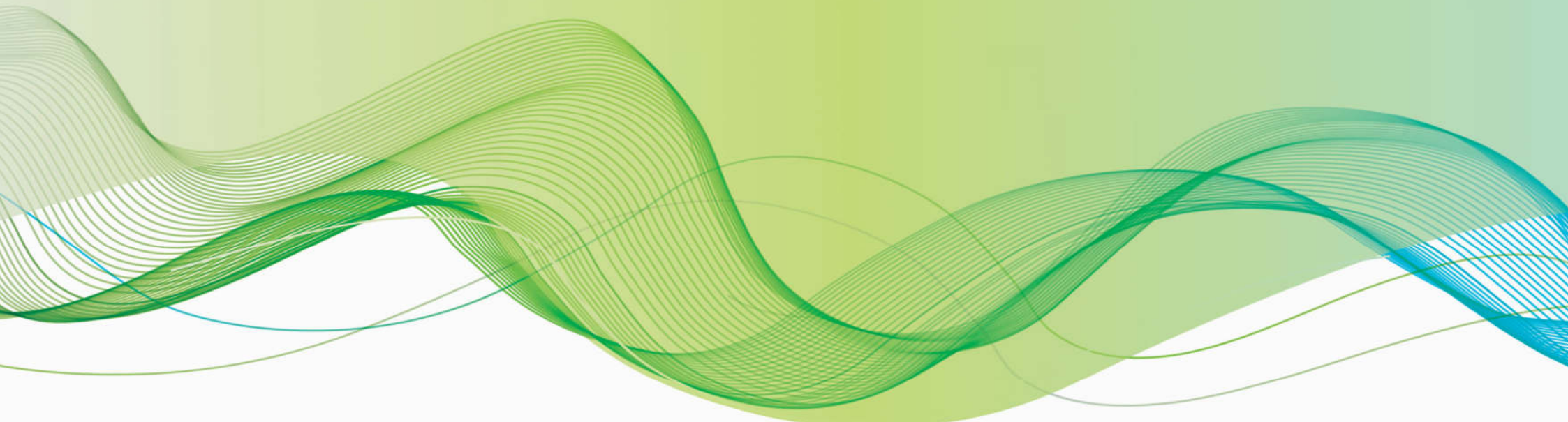


First boiler with  
return of  
investment



wave

*inspired by Rankine*



## **Advantage of WAVE**

### **Return of investment**

Thanks to electricity generation have WAVE greater return of investment than any other biomass source. Other boilers just spending money to work.

### **Turnkey solution**

We provide a complete supply from the processing of necessary permits, through construction preparation to installation and commissioning, including ensuring a connection with the existing control system

### **Simple instalation**

WAVE consists of two containers - one is the technology itself, the other is fuel management. The containers will be delivered to you already fully installed and functional. Just stand on the ground and connect to water and electricity.

### **Support**

WAVE is connected to remote support 24/7. So we know most of the problems before they affect the boiler operation. Either we solve them online or arrange a service technician's trip as soon as possible.

### **CO2 negativní**

Protože jako jediní elektřinu nespotřebujeme, ale vyrábíme, náš kotel nejen žádný oxid uhličitý neprodukuje, ale dokonce spotřebává. Vyrobenou elektřinu byste totiž museli bez WAVE koupit ze sítě a tam se stále vyrábí nejvíce z uhlíkových elektráren.

### **Cheapest operation**

The WAVE boiler is also able to use very low-quality fuel with humidity up to 40%. From it, on the contrary, we produce the most expensive energy - electricity and heat with high overall efficiency.

## **How to get**

1. Prefeasibility analysis for free
2. Feasibility study
3. Preparation of project documentation
4. Securing funding
5. Preparing the installation site
6. WAVE installation and commissioning

## **Contact US**

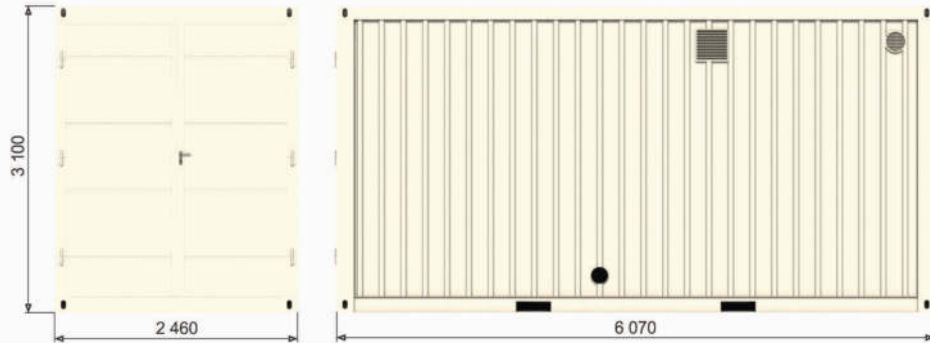
### **Manufacturer**

DAMGAARD Consulting s.r.o.  
Korunní 2569/108  
Praha 10  
info@damgaard.cz  
737 913 072

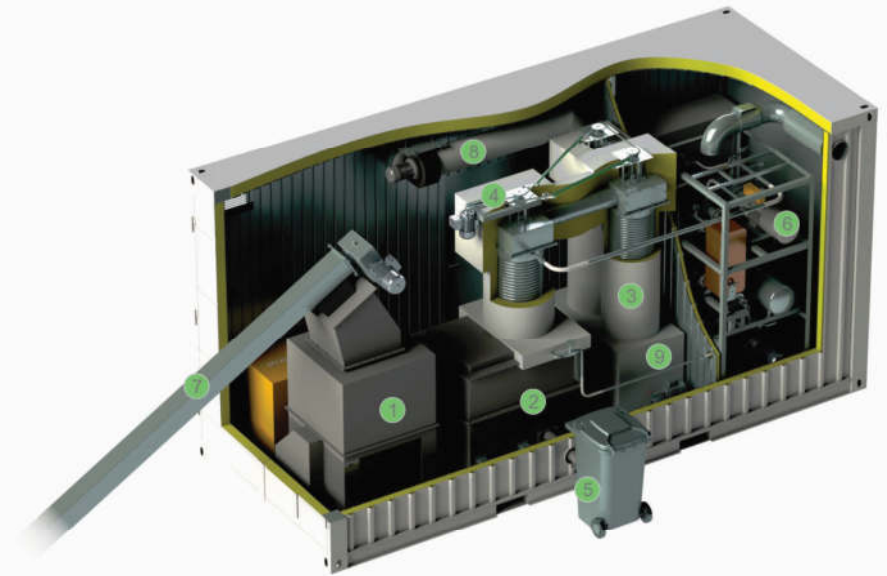
### **Dealer**

CITYSUPPORT s.r.o.  
Rybná 716/24  
Praha 1  
jiri.furasek@citysupport.cz  
602 784 378

## Dimensions



## Technology of WAVE



- ① Fuel transfer
- ② Combustion chamber
- ③ Heat exchanger
- ④ Automatic cleaning
- ⑤ Ash tank (manual version)
- ⑥ Electricity production - turbine
- ⑦ Chip conveyor
- ⑧ Flue with forced flue gas exhaust
- ⑨ Fly ash removal from heat exchangers

## Revolutionary solution

### Production of electricity



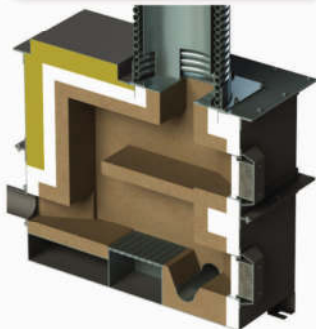
Power generation is provided by a lamellar expander, which we have developed ourselves and is constantly innovating for maximum efficiency and durability. Its construction is very simple, practically maintenance-free.

### Automatic cleaning

The flue gas heat exchangers have an automatic cleaning system that performs mechanical abrasion of the heat exchanger surface several times per hour, ensuring high efficiency throughout the year.



### Durable device



WAVE has a massive combustion chamber and a very durable fuel conveyor. As a result, there is no risk of damage even if the fuel is poor or even contaminated. Also, the massive lining allows the combustion of even very damp biomass.

## Parameters of WAVE 120

|                            |        |
|----------------------------|--------|
| Power input in fuel        | 160 kW |
| Heat input                 | 130 kW |
| Heat losses                | 30 kW  |
| Heat output                | 120 kW |
| Terminal electrical power  | 8,2 kW |
| Net electrical power       | 6,0 kW |
| Own electrical consumption | 2,2 kW |
| boiler efficiency          | 82,5 % |

|                                 |                        |
|---------------------------------|------------------------|
| Overall efficiency              | 78,1 %                 |
| Fuel                            | wood chips             |
| Recommended fuel dimensions     | 5x3x1 cm               |
| Fuel consumption apx.           | 0,25 m <sup>3</sup> /h |
| Temperature gradient of heating | 60/80 °C               |
| Overall weight                  | 6,5 t                  |
| Electrical connection           | 3 x 400 V              |
| Dimensions                      | 2,5 x 3,1 x 6 m        |