

10 m<sup>3</sup> of sawdust  
= 6000 kWh

# Nocart Multi-fuel Boiler Plant

Product description

**NOCART**  
Providing Power.

# Nocart Multi-fuel Boiler Plant

## Product overview

The Nocart Multi-fuel Boiler Plant generates heat (for example for district heating) and electricity (for example for industrial needs). The heat is gathered from the boiler. The source material is gasified, transformed into heat and then to electricity with the Nocart Power Management Unit (PMU). The multi-fuel boiler plant can utilize a variety of source materials, such as wood chips and a variety of bio materials.

The Nocart Multi-Fuel Boiler Plant is a reliable source of energy that helps customers become energy self-sufficient. With a highly efficient process and clean burning, the boiler plant has a better total efficiency and a small carbon footprint. It reduces greenhouse gas emissions, so is therefore a truly

environmentally friendly option. This brings not only benefits in terms of ecology, but also of corporate image. In the long run, the cost savings are also significant.

Nocart builds the plant according to the customer's requirements. The electricity production capacity of a multi-fuel boiler plant can range from 500 kW to 30 MW.

The Multi-Fuel Boiler Plant is managed by Nocart Power Management Unit. The system guarantees 24/7 power and can operate fully off-grid. The operation of the system can be monitored, even remotely.

## Benefits of using the Nocart Multi-fuel Boiler Plant

The Nocart Multi-Fuel Boiler Plant creates significant cost savings due to the fully mobile fire grates, which guarantee an even feeding and gasifying process of the material and a better total efficiency.

The Nocart Multi-Fuel Boiler Plant is durable. The long life of the plant is guaranteed by preventive maintenance and quality control, which is carried out by using tested products and components made of high-quality materials.

The Nocart Multi-Fuel Boiler Plant is fully modular. It can be supplemented with unique Nocart solutions such as wind turbines and solar panels.

Nocart provides support and training. With the help of on-site training, customers learn how to operate the plant reliably and as efficiently as possible. Nocart contributes to increasing local knowledge of recycling and its benefits.

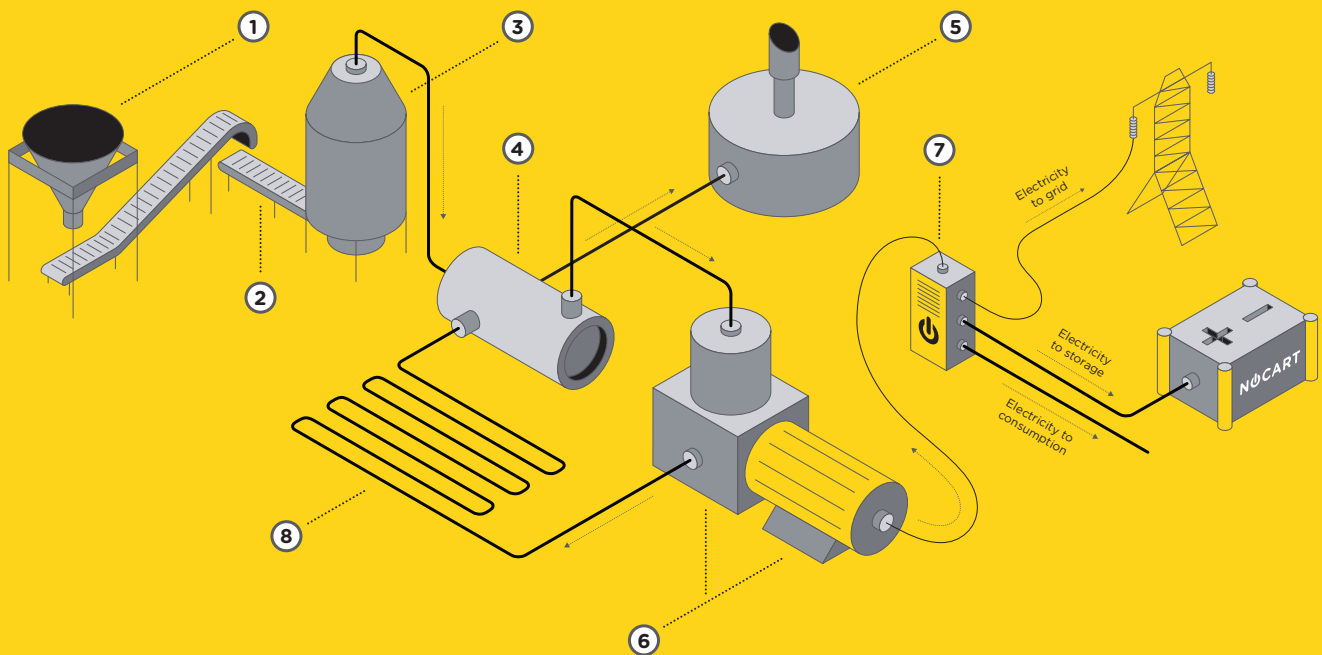
Nocart's expertise guarantees a controlled and safe process for burning different source materials. Equipped with monitoring and control mechanisms, the Nocart Multi-Fuel Boiler Plant's operation is highly automated.

## How does the Nocart Multi-fuel Boiler Plant work?

### Parts

The Nocart Multi-Fuel Boiler Plant is composed of pre-processing equipment, a furnace, a boiler, and optionally a washer, turbine generators, Power Management Unit, and batteries. Nocart provides a turnkey module-type delivery for all equipment.

1. Pre-processing equipment
2. The fire grates
3. Front furnace
4. Boiler
5. The washer
6. Power unit
7. The Nocart Power Management Unit (PMU)
8. The cooler





## Further information

### Source materials

The Nocart Multi-fuel Boiler Plant can use all biofuels as source material:

- Tea plant chips
- Wood chips
- Cutter chips
- Sawdust
- Straw
- Miscanthus
- Rice hulls
- Corn cobs
- Peat
- Coal

### Effective calorific values and volume densities

Fuel	Unit	MWh
Coal	t	7,003
Coke	t	8,139
Hardwood logs (non-oleic plants)	stacked m <sup>3</sup>	1.50
Mixed wood logs	stacked m <sup>3</sup>	1.25
Fuel chips	loose m <sup>3</sup>	0.80
Sawdust	loose m <sup>3</sup>	0.60
Wood chips	loose m <sup>3</sup>	0.50
Deciduous tree bark	loose m <sup>3</sup>	0.60
Conifer tree bark	loose m <sup>3</sup>	0.70
Wood pellet	t	4.70
Horse manure briquette (dry), average	t	4.40

### The benefits of a multi-fuel boiler plant

The Nocart Multi-Fuel Boiler Plant is an efficient and ecological choice for converting waste to energy. The even gasifying of the materials guarantees clean burning and improved overall efficiency. This creates significant cost savings. The multi-fuel boiler plant is an environmentally friendly option, because the waste is destroyed with a small carbon footprint.

### Safety

The Nocart Multi-fuel Boiler Plant has been designed according to European safety standards as well as regulations governing health and safety at work, and fulfils the requirements of European electrical safety standards. With its monitoring and control mechanisms, the Nocart Multi-fuel Boiler Plant operates with a high degree of automation.

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