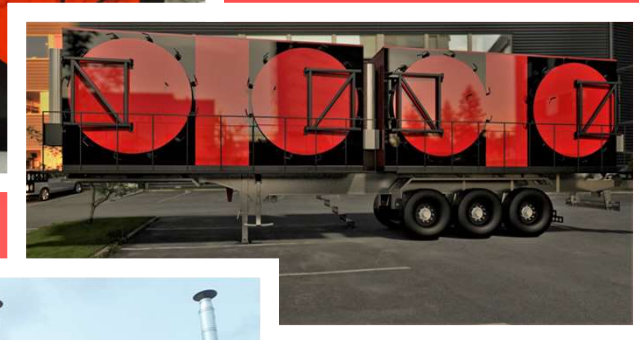
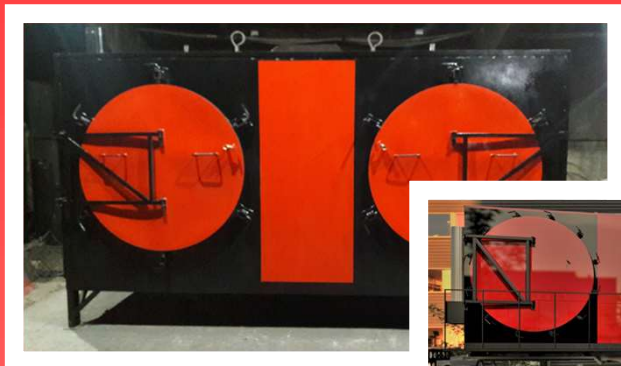
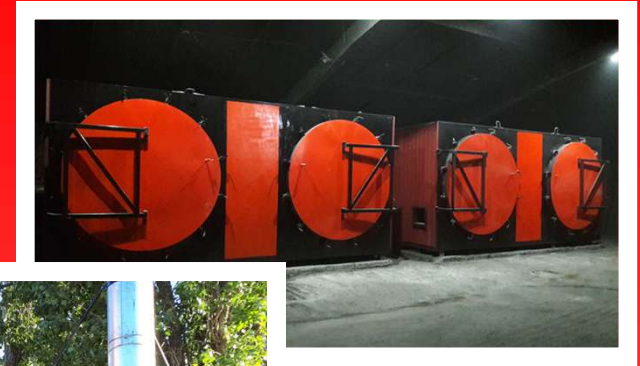


**The best equipment  
For the charcoal production**

**Impex Trading Production LLC** has been manufacturing equipment for charcoal production since 2012 year. During this time our company has become the only company in the world that produces such an assortment of the charcoal furnaces that are unmatched in performance and reliability.



Each of our new development is being tested in-house for at least six months. Due to this, we provide a guarantee for all our equipment for 2 years.

In this presentation, we present our manufactured charcoal furnaces

# CHARCOAL FURNACE UMT 3 PLUS



The design of UMT-3 is made so that it is practically impossible to disable it due to the installed system of automatic discharge of excess heat when critical temperatures are reached. Automation is triggered regardless of operator action. Due to this, the risk of heating the retort above the specified parameters is reduced to almost zero, which makes this furnace reliable and durable.

The design of UMT-3 is based on the principle of complete selection of the thermal energy of the furnace, including radiation heat, for heating wood, without loss during the transportation of heat from the furnace to retorts.

Automatic temperature control allows the production of charcoal with specified characteristics.



# CHARCOAL FURNACE UMT 3 PLUS EcoTeploOtbor



The main difference between UMT 3 PLUS EcoTeploOtbor and other UMT models is the existence of a boiler for burning pyrolysis gas with a capacity of 600-800 kW

## UMT 3 PLUS MAIN CHARACTERISTICS

- Productivity, min-max - 36-50 ton/month
- Power Consumption - 20 W/Hour
- Automatic protection against critical temperatures
- Automatic control of thermal processes
- Mechanical loading and unloading of raw material - up to 5 min
- Total absence of harmful emissions during operation
- No environmentally hazardous air emissions
- Low operating costs
- No consumables needed
- Does not need routine maintenance throughout the entire warranty period
- There is no need for consumables
- 24 month warranty

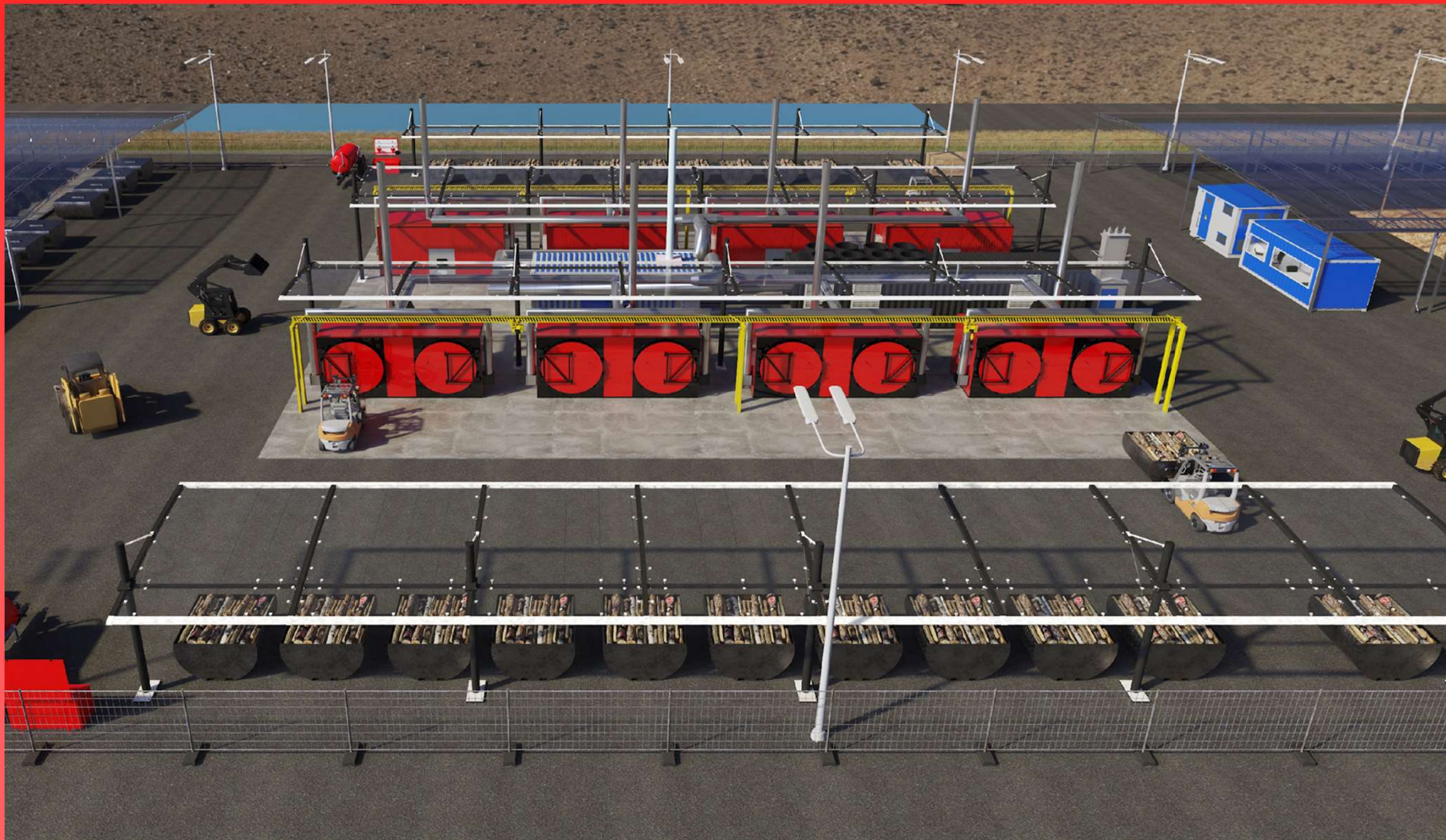


As to operating costs, UMT furnaces are unmatched :

- Up to five installations are serviced by one operator
- There is no need to cut and chop wood 30-40 cm long for the loading to installation.
- Logs up to 1 m long and up to 15 cm in diameter are loaded in the tanks.
- This reduces the cost of preparing wood for charcoal production. The cycle of one retort is 16-18 hours.

On average, 550-600 kg of charcoal comes out of one tank, while loading in the tank 2.6-2.8 m<sup>3</sup>

# The modular power station (MPS) Power of 500 kW/ hour based UMT 3 PLUS



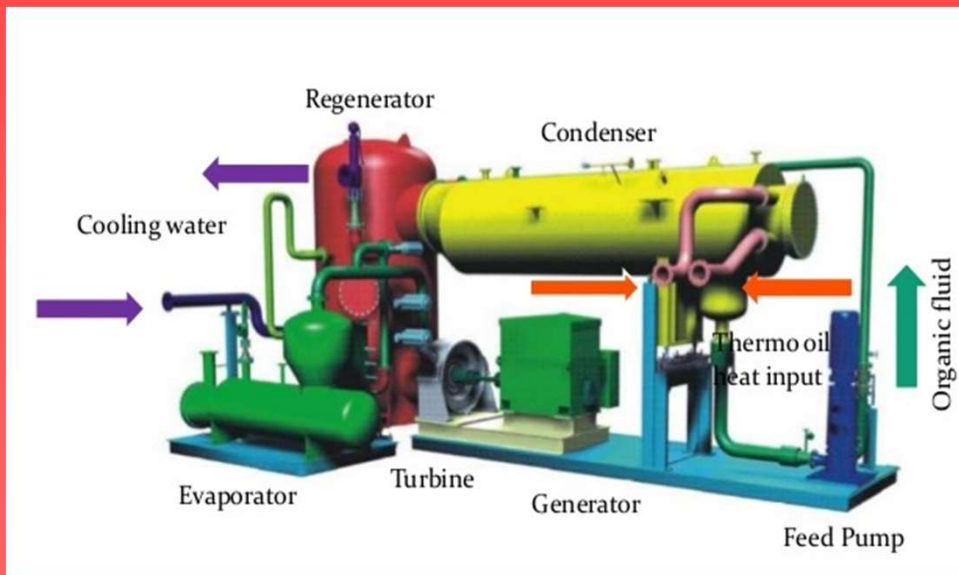
# Technology for the production of electricity from UMT 3 PLUS

- Thermal energy received during the pyrolysis combustion excess, is routed to generate electricity.
- The cost of electricity received using UMT 3 PLUS is almost ZERO. The cost of generating the energy needed to rotate the turbine is offset by the sale of charcoal, with additional revenue covering operating costs
- The world produces more than 11 million tons of charcoal annually
- At the same time, tens of millions of cubic meters of unburned pyrolysis gas are emitted into the atmosphere, polluting it
- In UMT 3 PLUS, all excess pyrolysis gas is burned in the secondary fire without harming the environment.

# The main components of the MPS capacity of 4.38 million Kw h / year

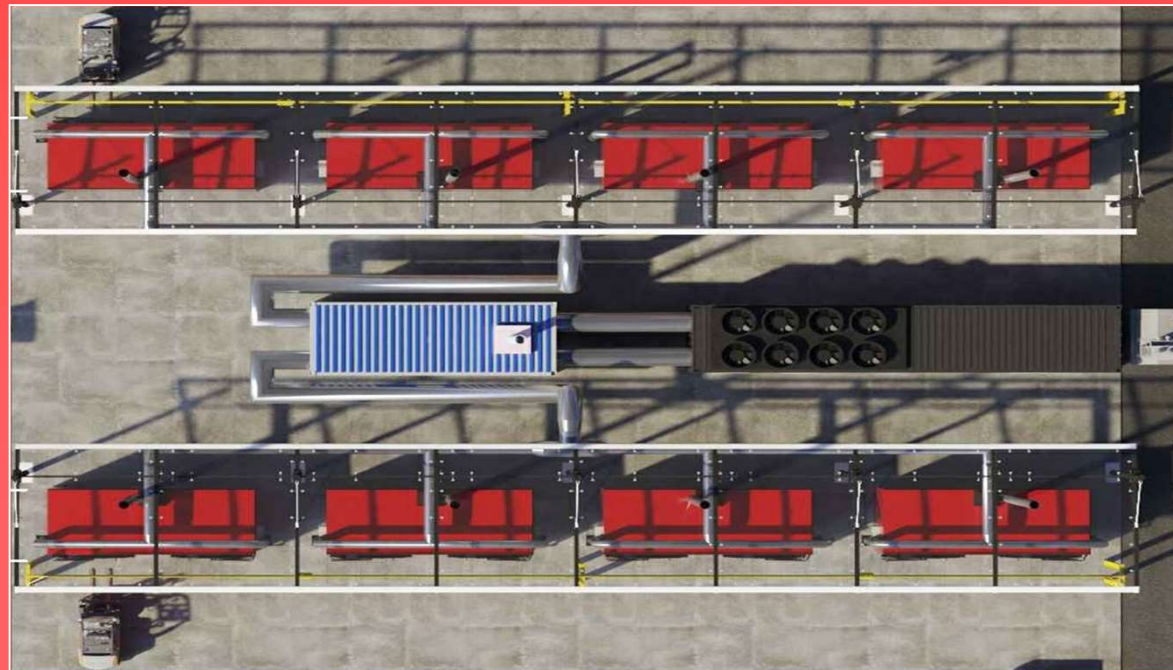
- ▶ ORC turbine
- ▶ 250 kW \* 2

- ▶ \MT 3 PLUS
- ▶ installations



# Calculation of the cost of electricity received

Parameter	Unit of measure	Value	Note
Annual electricity production (gross)	thousand kW-h / year	4380	500 kWh * 8760 h / year
Electricity expenses for own needs	thousand kW-h / year	219	219 kWh / year (5%)
Annual electricity production (net)	thousand kW-h / year	4161	
Electricity Cost	USD / kWh	0,10	
Cost of electricity generated	thousand US dollars	416,1	



# Benefits of producing electricity using charcoal furnaces

- The modularity of structures does not require large capital investments in capital construction
- The possibility of increasing electricity production by adding modules of ORC-turbines and UMT 3 PLUS
- Low cost of the project compared to other energy-generating technologies
- Zero cost of electricity received due to the lack of costs for energy required for rotation of the generator turbine

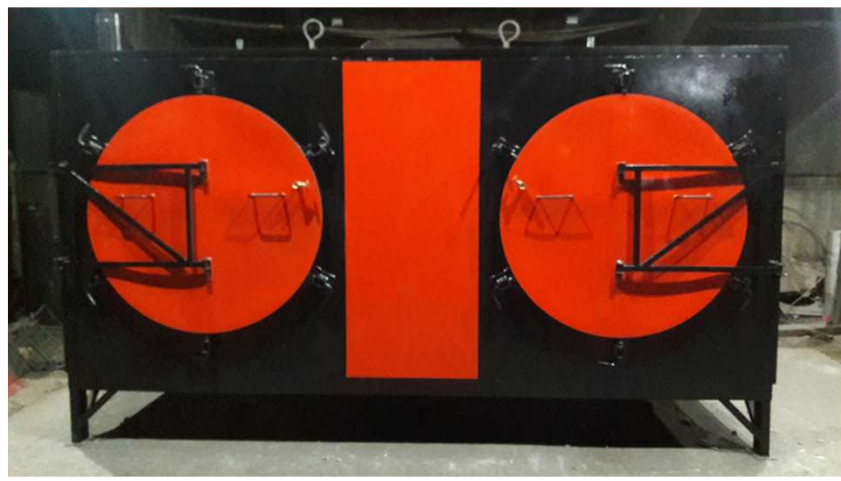


# MOBILE CHARCOAL COMPLEX



- ▶ The mobile complex created on the basis of UMT 3 can move after the raw materials, reducing the cost of delivering raw materials.
- ▶ The productivity of the complex is 80-100 tons / month of charcoal.

# CHARCOAL FURNACE UMT "FERMER"



The **UMT FERMER STANDARD PLUS** was created for small farms and is a continuation of the UMT series.

Productivity - up to 20 tons / month.

The operating mode is continuous.

The ratio of wood to charcoal 4.7 / 1.0

Charcoal furnace **UMT "FERMER STANDARD PLUS-K"** is an analogue of **UMT "FERMER STANDARD PLUS"**, with small additions.

A water heating boiler with a capacity of 200 kW is built into it. Now it is not just a charcoal burning furnace, now it is a mini-boiler, which works on excess heat and gas in the production of charcoal. You do not have to spend more on heating. Now you can and should earn money by heating your premises



# CONTACTS



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