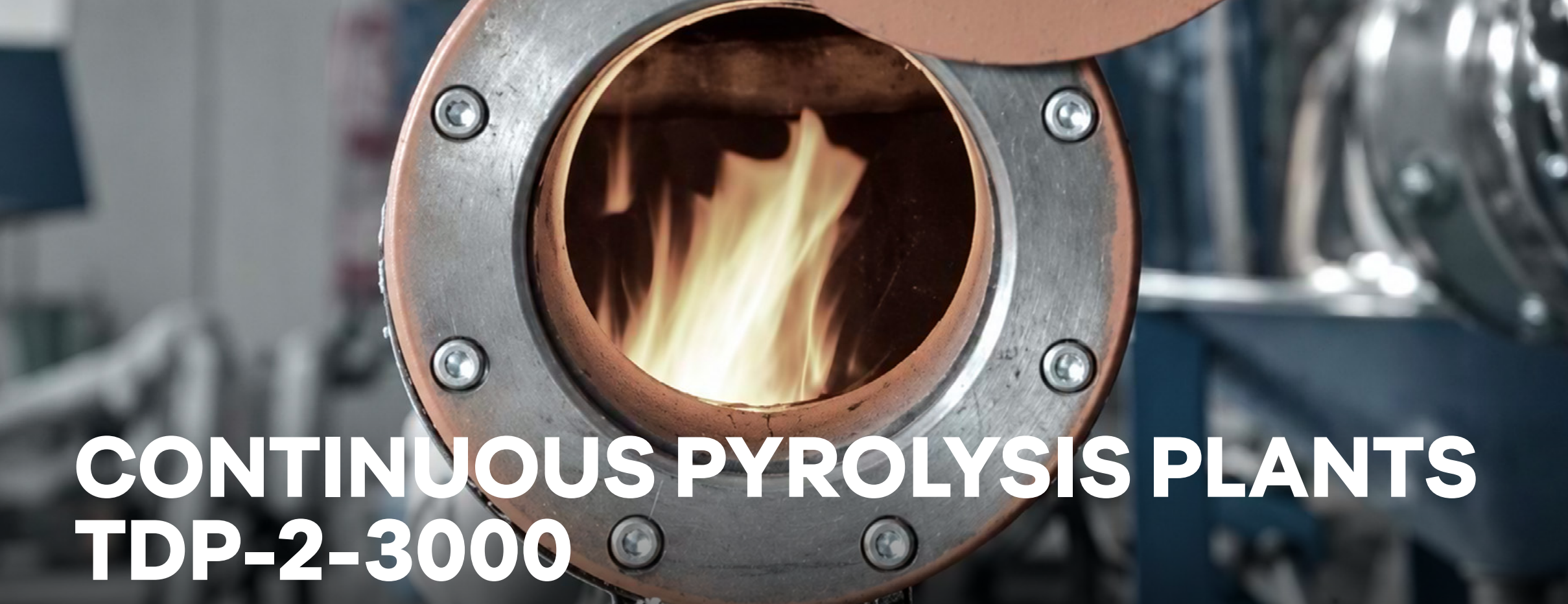




CONTINUOUS PYROLYSIS PLANTS TDP-2-3000

For Oil Sludge Treatment

2026

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ECO CARBON



Eco Carbon AG will perform, in accordance with the established technical requirements, **the whole range of works:**

Designing

Supply of equipment

Manufacturing

Supervision and Training

Continuous Thermal Decomposition Plant
MODEL TDP-2 with a different capacity
for the processing of an organic wastes



Technical Specifications & Capacity of TDP-2-3000



Parameter Name	Values
Nominal Capacity (mass flow rate)	2500 kg/h
Operating mode	continuous
Startup burner fuel options: • Diesel fuel (L/h) or • Natural gas (m³/h) or • Pyrolysis gas (m³/h)	• up to 115 • up to 120 • up to 130
Minimum equipment footprint, (m²)	20 x 18
Maximum pyrolysis chamber temperature, (°C)	750
Max. Reactor Temperature (not more °C)	500–600
Supply voltage, (V)	380
Current type and frequency, Hz	3P, 50
Maximum power consumption, kWh	120
Nitrogen (for inerting)	1–2 Nm³/h (for discharge seal)
Minimum flue gases stack temperature of °C	140
Afterburner temperature	>1100°C
Climate class (IEC 60721)	3K3 (stationary use, weather-protected)
Ambient temperature range	from -40°C to +40°C
Personnel per shift	1–2
Transport classification	Non-hazardous (The equipment contains no hazardous substances and is shipped in an empty and cleaned condition)
Delivery	Containerized model, plug-and-play format
Emissions (with optional cleaning block)	Meets EU BAT





TDP-2-3000: 3D Model



Waste Type

- Oil sludge
- Drilling sludge
- Acid sludge
- Coal, coal-tar
- Used tires
- E-wastes
- Biomass
- Rubber, etc.



End Products

- Condensed pyrolysis fuel
- Syngas
- Dry residue (solid char.)

High-tech facility designed
for **waste to energy** equipment



Operation method

**Continuous
type 24/7**



Reactor type

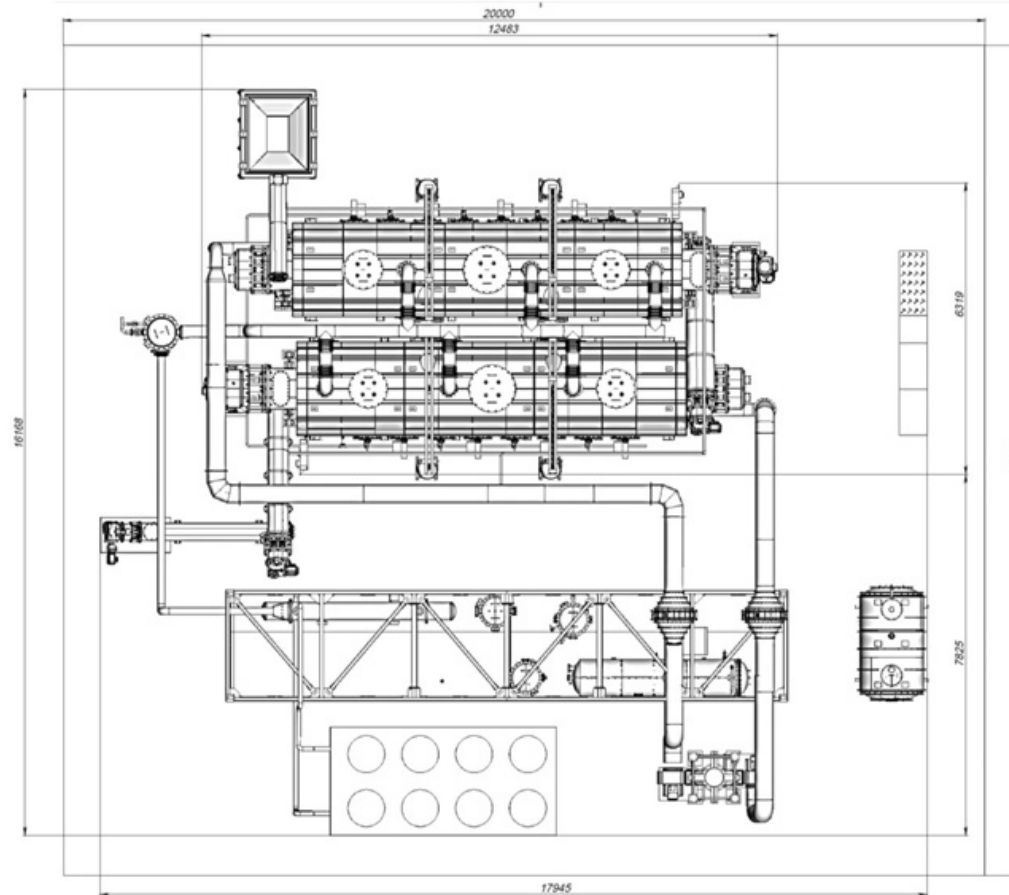
**Vacuum
reactor**



Capacity
2500 kg/h

*The configuration of the equipment may change during the design study.

Space requirement for TDP-2-3000



*The configuration of the equipment may change during the design study.

Equipment List



Condensation Unit

- Pyrolysis gas filter
- Heat exchanger
- Catalytic conversion column*
- Gas-liquid separator
- Recirculation pump
- Expansion tank
- Air cooler

Reactor Unit

- TDP reactors
- Burners
- Air blowers

Raw Material Preparation System

- Shredder*
- Feed Hopper
- Conveyors
- Extruders*

Char. Discharging System

- Unloading conveyors
- N₂ inerting bin
- Conveyors*

Flue Gas Removal System

- Catalytic block
- Air diluting louver
- Chimney
- Flue gas fan
- Gas cleaning system*(optional)

Pyrolysis Gas System

- Gas drying column
- Demister
- Gas compressor

Pyrolysis Fuel System

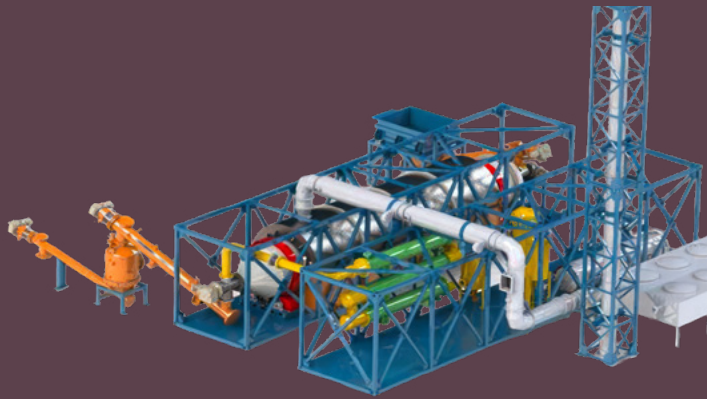
- Fuel tank
- Fuel pump

Pneumatic System

- Air Compressor
- Nitrogen supply

*Optional equipment or supplied on request depending on Feed type.

Basic technological process



01 | Waste Feed Preparation Unit

To receive, store, and feed the raw feed into the TDP reactor without letting air in. It ensures continuous feed to reactors.

02 | Thermal Destruction Unit

The raw material is continuously fed into the pyrolysis chamber, where it decomposes without oxygen so that organic components vaporize, leaving behind a solid residue (biochar).

03 | Condensing and Separation Unit

The vapor-gas mixture is cleaned of heavy components and mechanical impurities in the pyrolysis gas filter and cooled in a heat exchanger. The gas-liquid mixture is separated in the separator into components – pyrolysis gas and pyrolysis fuel/oil.

04 | Discharge Block (Solid Char.)

To safely remove the hot solid residue (biochar) from the reactor, cool it down, and package it for transport.

05 | Flue Gas Cleaning Unit

This block guarantees that the stack emissions are clean, odorless, and meet environmental standards. Multi-stage absorption, mechanical and chemical flue gas cleaning (on request).



06 | Automation & Control System (APCS)

End products

(depending on the composition of raw materials)



1 | Pyrolysis Gas

- **Primary Use:** Acts as the dedicated internal fuel to sustain the operations of the TDP itself.
- **Operational Cycle:** It is fed directly back into the system once the plant reaches its optimal operational temperature mode.



2 | Condensed Fuel

- **Primary Use:** Composed of liquid hydrocarbons designed to serve as a combustible energy source.
- **Target Equipment:** Regularly utilized as fuel to power industrial installations, heavy technological machinery, and boiler house operations.



3 | Dry Residue (Char.)

- **Primary Use:** Functions effectively as technical soil and solid structural filler.
- **Applications:** Widely deployed for stabilizing road slopes, completing structural quarry backfills, and carrying out environmental reclamation for landfills and storage barns.

End products

(depending on the composition of raw materials)



ECR 2 100 Resh



ECR3
Elektroschrott geshreddert



ECR4 Platinen
Grade 1 geshreddert



ECRM 1
Resh 75
Guku und Mikrioturbine 25

Let's start the conversation

Contact Us



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