



C500-I

P Y R O L Y S I S B O I L E R

HEAT THAT SAVES THE CLIMATE

Information:

Except water, soil and atmosphere, biomass is the most important global CO₂ storage/sink. The conventional energetic use of local biomass releases as much CO₂ as was previously bound by the biomass. In contrast, BIOMACON technology essentially only uses the hydrogen contained in the biomass for energy purposes. Chemically stable carbon is systematically decoupled as biochar.

Production of biochar from sustainable biomass sources is an important component within the fight against climate change. One kilogram of pure biochar binds 3.6 kg of CO₂ for more than 1.000 years. Moreover, the application of biochar in agriculture is a powerful tool against soil desertification. Water and groundwater are actively protected when nitrate-containing fertilizers are replaced by biochar.

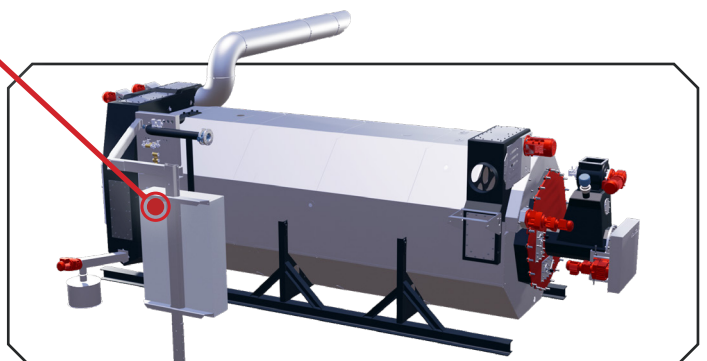
The BIOMACON pyrolysis boilers provide an integral system for the effective use of all available resources.

- BIOMACON Pyrolysis Boilers are designed for ligno-cellulosic raw materials with a maximum water content of 30%.
- The space requirement of the Pyrolysis Boilers is low. This makes the integration into existing buildings easy.
- The compact design ensures maximum heat utilization. The radiation losses are low.

BIOMACON Pyrolysis Boilers are heatdriven and designed according to the required heat demand. They are therefore available in various sizes from 40-500kW. The power control is modulating and automatically adapts to the required heat demand in a wide load range.

Technical Data:

Trade name:	Pyrolysis Boiler
Nominal thermal power:	500kW
Weigt:	28.125kg
Heat exchanger water vol.:	7.312Liter
Max. operation pressure:	2,8bar
Max. permissible operating temp. in the converter:	900°C
Max. permissible operating temp. in the combustion chamber:	850°C
Rated voltage / current::	400V/32A
EL. power consumption:	3.500W



North America Distribution Partner:
High Plains Biochar LLC
108 Howe Rd
Laramie, WY 82070
USA

CEO: Rowdy Yeatts
Tel: 307-761-5508
Main: Rowdy@HPBiochar.com
Web: www.HPBiochar.com

Manufacturer:
BIOMACON GmbH
Schmiedestr. 2
D-31547 Rehburg/Germany
Tel: +49 5023 9000254

Mail: info@biomacon.com
Web: www.biomacon.com
Register-Nr: HRB 100820
Local court: Walsrode

VAT-IdNr.: DE230915278
CEO: Ulrich Suer
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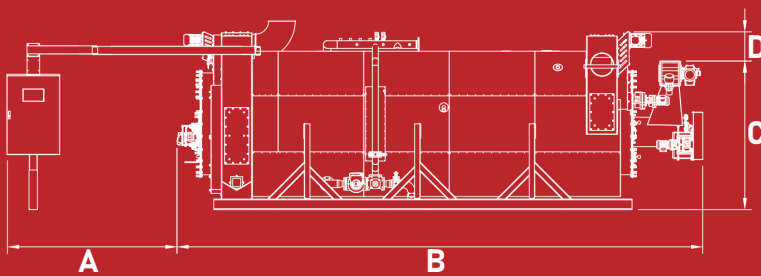
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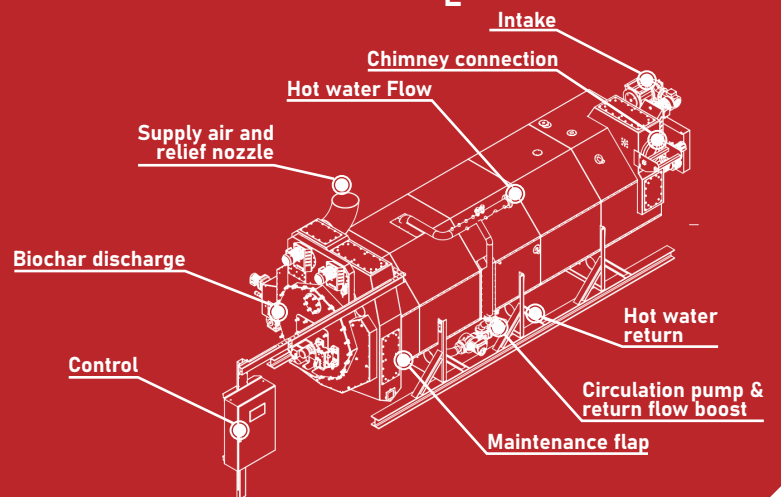
C500-I

Pyrolysis Boiler

Technical Drawing:



	Dim. in mm:
A	2.583
B	8.985
C	2.255
D	442
E	3.492



Application Example:

Baseline::
Solid fuel: Wood chips (pine)
Water content: 20%
Ash content: 2%
Full load hours: 8.000

Model	Solid fuel intake [t/a]	Solid fuel intake [kg/h]	Biochar discharge [t/a]	Biochar discharge [kg/h]	Nominal thermal power [kW]	CO2 equivalent storage [t/a] (1kgC:3,6kgCO ₂)-20% loss
C500-I	2.360	295	453	57	500	1.305