

BIOMACON²

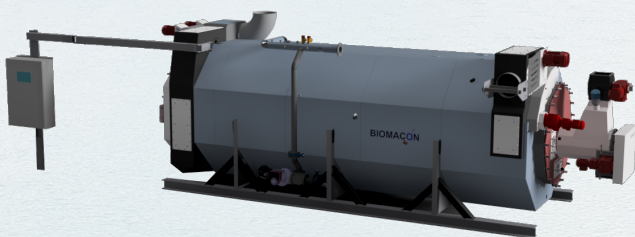
DECARBO Energy Systems

HEAT THAT SAVES THE CLIMATE

DECARBO Energy Systems - thermal power of 40 to 400kW

Climate change, scarcity of resources, land degradation and groundwater pollution are the major challenges of the 21st century. BIOMACON DECARBO Energy Systems are an important building block in addressing these challenges. In addition to the consistent conservation of resources, there is currently no promising alternative.

Except water, soil and atmosphere, biomass is the most important global CO₂ storage. 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.



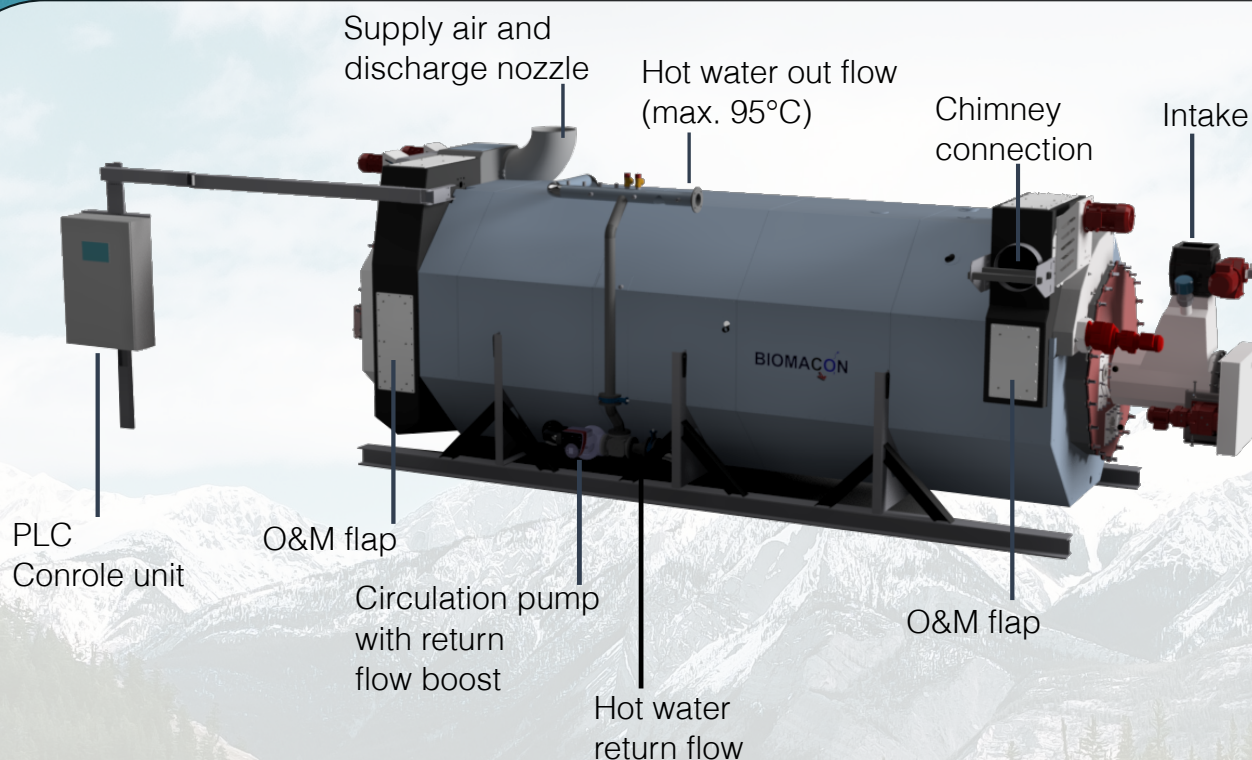
Production of biochar from sustainable biomass sources is an important component within the fight against climate change. One kilogram of pure biochar binds 3.6 kg of CO₂ for more than 1.000 years. Moreover, the application of biochar in agriculture is a powerful tool against soil desertification. Water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

The BIOMACON-DECARBO Energy Systems provide an integral system for the effective use of all available resources.

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

BIOMACON-DECARBO Energy Systems are heat-driven and designed according to the required heat demand. They are therefore available in various sizes from 40-400kW. The power control is modulating and automatically adapts to the required heat demand in a wide load range.





Technical data	Unit	C40-F	C63-F	C100-F	C160-F	C250-I	C400-I
Fuel type		Biomass according to DIN EN 14961 P63					
Max. water content	%	30					
Max. biomass size	mm	60					
Nominal heat power range	kW	20-40	30-63	50-100	80-160	125-250	200-400
Thermal efficiency at nominal heat power	%	82					
Electrical data							
El. power consumption at nominat heat power	kW	4					
El. peak load during start up	kW	12					
El. connection Voltage/Frequ.	V/Hz	400/50					
El. connection fuse	A	32					
General machine data							
Max. operating pressure	bar	6					
Max. flow temperature	°C	95					
Min. return temperature	°C	50					
Water volume of boiler	liter	585	921	1.463	2.340	3.656	5.850
Machine weight	kg	4.763	5.562	7.310	9.257	14.600	22.500
Design data for chimney calculation							
Exhaust gas temperature at nominal heat power	°C	175					
Exhaust gas temperature at min. heat power	°C	105					
Required delivery pressure	Pa	15					
Chimney connection diameter	mm	350					