REFERENCE SHEET

HEAT RECOVERY
BIOMASS
PRIMARY FUELS
SOLID RESIDUES
LIQUID & GASEOUS RESIDUES

JFE Engineering Group
Standardkessel Baumgarte

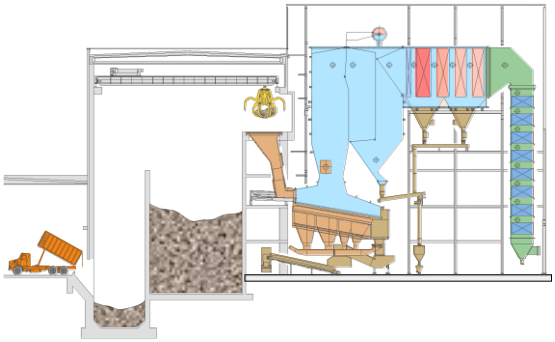
BIOSTOOM PLANT OOSTENDE BELGIUM

Standardkessel Baumgarte GmbH • Energy from Waste

BIOSTOOM PLANT OOSTENDE, BELGUIM




Number of Lines	1
Fuel	Domestic/ Industrial refuse
Heating Value (min./max./nom.)	11.0 / 18.0 / 15.0 MJ/kg
Fuel-Throughput (min./max./nom.)	12.6 / 21.0 / 16.8 t/h
Rated Thermal Input	70 MW
Steam Capacity	80.3 t/h
Steam Pressure	42 bar
Steam Temperature	402 °C
Feedwater Temperature	130 °C
Flue-Gas Flow	135,000 m³ i. N./h
Exhaust-Gas Temperature	180 °C
Operating Approval	Vlarem II
Year of Commissioning	2009



Example

THE TASK

So as to fulfil the task to design a waste to energy plant based on economic parameters with the highest possible efficiency, different plant capacities were examined in close cooperation with the client and the Belgian power supply company Biostoom Oostende nv (formerly Electrawinds Biostoom N.V.). The secured amount of fuel was a decisive factor for the maximum plant capacity.

THE SOLUTION

The optimum overall economic solution for the planned project was found using the basic planning of an already implemented boiler type with a relevant high capacity.
In the presence of an average fuel throughput of around 17 t/h, the steam generator is capable of producing a volume of steam of approx. 80 t/h at a pressure of 42 bar and a temperature of 400 °C. The steam turbine is designed for full condensing operation. A steam amount up to 19.4 MW can be electrically generated. In close cooperation, Standardkessel Baumgarte accompanied the client's services throughout the entire project.

SCOPE OF SUPPLY

- Main Steam Generator with Fittings
- Heating Surface Cleaning Devices in Form of Spraying, Rapping and Soot Blower Systems
- Pusher Type Grate System incl. Ancillary Equipment
- Ignition and Auxiliary Firing with Fuel Storage and Conveyor Systems
- Fuel Bunker Crane and Slag Conveying Unit
- Boiler and Turbine House Steel Structure, Steel Structure for Firing System and Boiler incl. Stairs and Platforms
- Refractory Lining and Thermal Insulation
- Flue Gas Treatment, Induced Draught Fan and Steel Stack
- Water-Steam-Cycle with Turbine, Condenser, Steam Conversion
- Electro, Control, Measuring and Process Technology, Low Voltage Technology, Emergency Power Supply

ENGINEERING SERVICES

- Engineering incl. Approval and Official Engineering
- Installation and Commissioning
- Trial Run

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