

- HEAT RECOVERY
- BIOMASS
- PRIMARY FUELS
- SOLID RESIDUES
- LIQUID & GASEOUS RESIDUES

## WOOD CHP PLANT SILBITZ, GERMANY



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Fuel	Waste Wood (A1 – A2)
Low Heating Value (min./max./nom.)	11.5 / 14.0 / 13.1 MJ/kg
Fuel Throughput (min./max./nom.)	6.6 / 8.1 / 7.07 t/h
Rated Thermal Input	25.8 MW
Electrical Power Output	5.6 MW
Steam Capacity	28 t/h
Steam Temperature	425 °C
Steam Pressure	46 bar
Feed Water Temperature	105 °C
Rated Flue Gas Volume	56,000 m <sup>3</sup> /h i.N.
FG-Temperature	190 °C
Operating Approval	4. BlmSchV
Type of Boiler	Natural Circulation
Year of Commissioning	2003

### THE TASK

Economical, ecological and safe – that was the criteria for the new biomass power plant to be operated by the Plambeck company, headquartered in Silbitz.

As the general contractor Standardkessel Baumgarte was commissioned to develop a solution based on a combined heat and power system (cogeneration). Moreover, it had to comply with EEC law regulations, with the minimum level of electrical efficiency not falling below 25 %.

### THE SOLUTION

The prerequisite for successful operation is the safe and constant provision of the fuel. It is delivered by transport lorries via road connections at specified times of the day. The fuel area is covered and enclosed by walls on 3 sides. The fuel supply is designed for approx. 7 days.

Via two removable floors with downstream feed augers (screw conveyors), the fuel is transported by an enclosed conveyor belt to the slope conveyor and from there, via a feed opening to the ram feed and then to the actual reciprocating grate in the boiler.

In addition to all of the power plant's technical equipment, such as the steam turbine, air condenser, steam/water cycle, electrical/process measuring and control equipment and process control technology, the complete building comprising of the outdoor equipment was included in Standardkessel Baumgarte scope of delivery.

It only took 18 months from order placement to delivery release to the first power input into energy provider TEAG's network.

### SCOPE OF SUPPLY

Turn-key Biomass Power Plant, specifically:

- Civil Works
- Fuel Handling System
- Grate, Boiler, Flue Gas Cleaning
- Water/Steam Cycle
- Electrical/Process Measuring and Control Equipment, Process Control Technology

### ENGINEERING SERVICES

- Engineering incl. Permit and Authority Engineering
- Erection
- Commissioning

