

HEAT RECOVERY  
BIOMASS  
PRIMARY FUELS  
SOLID RESIDUES  
LIQUID & GASEOUS RESIDUES

## WTE PLANT BREMEN GERMANY



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Number of Lines	2
Fuel	Household and Industrial Waste
Heating Value (nom.)	10.5 MJ/kg
Fuel Throughput (min./max.)	17.8 / 25.4 t/h
Rated Thermal Input	74 MW
Steam Capacity	82.5 t/h
Hot Steam Pressure	42 bar
Hot Steam Temperature	420 °C
Feed Water Temperature	130 °C
Flue Gas Flow	125,018 Nm <sup>3</sup> /h
Exhaust-Gas Temperature	210 °C
Operating Approval	17. Federal German Pollution Control Act
Year of Commissioning	2011 / 2013

### THE TASK

The swb Entsorgung runs the waste-to-energy plant by using 4 saturated steam boilers. In the year 2005, Standardkessel Baumgarte modernised boiler 1. Where the development of an improved plant efficiency in line with the latest EC Waste Framework Directive is concerned, Standardkessel Baumgarte has been given the task to upgrade the existing waste-to-energy plant. These upgrading measures encompass the conversion of the saturated-steam boiler 1 into a hot-steam generator and the complete replacement of boiler 4. The boilers, which will then be identical in construction will supply steam to a new turbine.

### THE SOLUTION

The modernisation of boiler 1 includes the upgrade of the steam drum and the refractory lined headers. The convective heating surfaces of the evaporator and economiser shall be removed and replaced by new superheater surfaces and an external economiser. In doing so, the steel structure will be adapted. The grate-firing system integrated in boiler 1 remains almost unchanged. Boiler 4 will be completely dismantled and newly installed. The boiler pressure parts and heating surfaces will be identical in construction with boiler 1. The grate-firing system remains unaltered.

### SCOPE OF SUPPLY

- Steam Generator With Valves and Accessories
- Heating Cleaning Surface Facility as Sootblower and Spray-Water System
- Ignition and Auxiliary Firing System
- Refractory Lining
- Thermal Insulation
- Boiler Supporting Structure with Stairs And Platforms
- Boiler Instrumentation Equipment

### ENGINEERING SERVICES

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

