HEAT RECOVERY BIOMASS PRIMARY FUELS

SOLID RESIDUES

LIQUID & GASEOUS RESIDUES

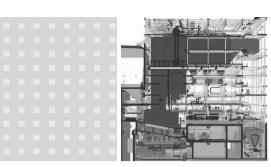


EFW PLANT STAPELFELD HAMBURG GERMANY



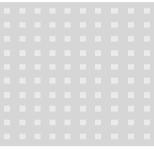


EFW PLANT STAPELFELD, DEUTSCHLAND

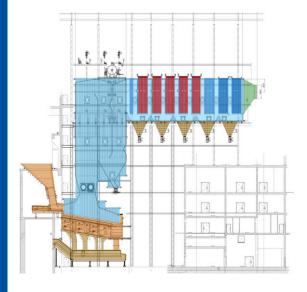








Number of Lines	Unit	1
Fuel		Municipal Solid Waste, Industrial Waste
Heating Value (min./nom./max.)	MJ/kg	8,0 / 11,0 /13,6
Fuel Throughput (min./nom./max.)	t/h	29,3 / 39,3 / 45,0
Rated Thermal Input	MW	120
Steam Capacity	t/h	147,4
Steam Pressure	bar(ü)	40
Steam Temperature	°C	400
FW-Temperature	°C	115
Flue Gas Flow (nom)	Nm³/h	220.000
Exhaust gas Temp.	°C	140
Emission Regulation	acc. to	BREF
Commissioning	Year	2024



THE TASK

EEW Energy from Waste GmbH is building a new replacement for the existing energy from waste plant at the Stapelfeld site, located northeast of Hamburg. The entire complex will consist of two individual plants, a thermal waste treatment plant for residual waste and a mono sewage sludge incineration plant. In the future, municipal waste, commercial waste similar to household waste and processed municipal waste will be thermally treated, electricity will be fed into the grid and district heating will be produced for the municipality of Stapelfeld and the Hanseatic City of Hamburg. Standardkessel Baumgarte received the order to supply the steam generator and the grate firing system for the new energy from waste plant.

THE SOLUTION

For successful project implementation, Standardkessel Baumgarte relies on a steam generator with 3 vertical radiation passes and one horizontal convection pass, which also contains the first stage of the economizer. Sodium hydrogen carbonate is used as a reducing agent in the subsequent dry adsorption flue gas cleaning system. An SCR system for catalytic NOx reduction is also integrated into the RGR. To improve overall boiler efficiency, a second economizer stage is integrated inside the flue gas cleaning system to further cool the flue gases before they enter the second cleaning stage.

SCOPE OF SUPPLY

- Grate Firing System with Auxiliaries
- Steam Generator with Auxiliaries
- Ignition and Auxiliary Burners incl. Air System
- De-Slagging to Bunker and De-Ashing to Pneumatic Sender
- Feed Water Pumps, Feed Water Tank, Dearator
- Primary and Secondary Air System with Fans
- Steel Structure, Platforms, Stairs
- Combustion Control System
- Crane Systems for Waste, Slag and Machine House

ENGINEERING SERVICES

- Engineering
- Erection and Commissioning
- Trial Run