

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

DEVONPORT EfW CHP FACILITY PLYMOUTH, GREAT BRITAIN



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Number of Lines	1
Fuel	Household and household-type Industrial Waste
Heating Value (min./max./nom.)	7.5 / 12.0 / 9.5 MJ/kg
Fuel-Throughput (min./max.)	20 / 32.8 Mg/h
Rated Thermal Input	82.1 MW
Steam Capacity	104 Mg/h
Steam Pressure	60 bar
Steam Temperature	420 °C
Feedwater Temperature	135 °C
Flue Gas Flow	200.000 Nm ³ /h
Exhaust-Gas Temperature	160 – 170 °C
Operating Approval	WID
Year of Commissioning	2015

THE TASK

With the thermal waste-treatment-plant, now under full operation in Plymouth, the Mannheimer MVV Umwelt O&M achieves to supply power and heat obtained from municipal waste and industrial waste utilisation process to the neighbouring HM Naval Base. Standardkessel Baumgarte received the order to supply the complete firing and steam generator system. Owing to the specified space conditions a conception featuring a potential high efficiency of the combustion line had to be developed.

THE SOLUTION

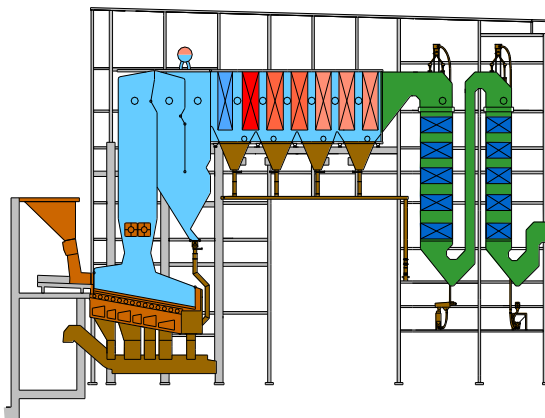
The intended installation of the vertical economisers in two one behind the other situated boiler passes leads to a flexible boiler operation with low exhaust gas temperatures. This arrangement of the economiser enables a Sodium Bicarbonate injection between the economiser passes and results in a large residence and reaction time of the additive to achieve reduced emission values.

SCOPE OF SUPPLY

- Pusher- Type Grate System incl. Secondary Systems
- Main Steam Generator with Valves and Accessories
- Heating Surface Cleaning Systems incl. Spraying Systems, Rapping and Ball Shot Cleaning Plants
- Ignition and Auxiliary Burners
- Brick Lining
- Insulation
- SNCR Plant
- Slag Discharge to Slag Bunker
- Boiler Steel Structure, Supporting Structure for Firing System and Boiler incl. Stairs and Platforms
- Refractory Lining and Thermal Insulation
- Measuring Boiler Equipment
- Cranes for Fuel and Bottom Ash

SERVICES

- Engineering Involving
- Engineering required for Authorities and Approval
- Material Procurement
- Fabrication
- Transport
- Installation and Commissioning
- Trial Run / Performance Testing / Operating Staff Training



example