REFERENCE SHEET

HEAT RECOVERY
BIOMASS
PRIMARY FUELS
SOLID RESIDUES
LIQUID & GASEOUS RESIDUES

JFE Engineering Group
Standardkessel Baumgarte

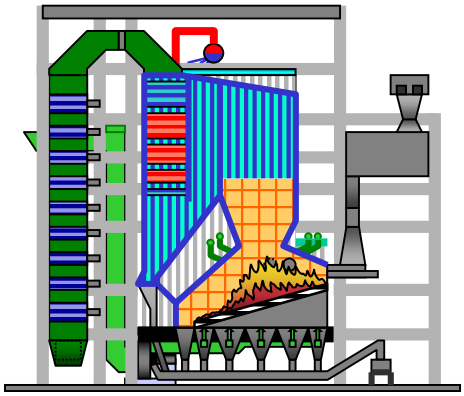
BIOMASS POWER PLANT SPEYSIDE, GREAT BRITAIN

Standardkessel Baumgarte GmbH • Power Plants

BIOMASS POWER PLANT SPEYSIDE, GREAT BRITAIN



Fuel	Fresh Wood
Heating Value (min./nom./max.)	7 / 9 / 12 MJ/kg
Fuel Throughput Rate (nom.)	approx. 150,000 t/a
Total Rated Thermal Input	46 MW
Electrical Capacity	12.5 MW
Steam Capacity	52 t/h
Steam Temperature	510 °C
Steam Pressure	95 bar
Feedwater Temperature	140 °C
Flue Gas Volume Flow (nom.)	82,000 m³/h i.N.
Exhaust Gas Temperature	126 °C
Year of Commissioning	2016



Exemplary Sketch

THE TASK

After more than two years of project development and planning time Standardkessel Baumgarte received the notice to proceed for the biomass-fired power plant in Speyside. During a construction period of approx. two years the biomass-fired power plant is constructed by Standardkessel Baumgarte as the general contractor. The power plant feeds about 12.5 MW of electricity into the public grid and export approx. 9 MW of process steam to supply the neighbouring Distillery.

THE SOLUTION

The plant is constructed with the already frequently proven Standardkessel Baumgarte firing system and boiler concept that has been designed specially for the combustion of green wood. The generously dimensioned furnace of the 4-pass boiler concept, as well as, the downstream radiation pass ensure outstanding burn-out of the flue gases. The convection passes arranged downstream accommodate the heating surfaces of the superheaters, evaporators and economizers. The stoker firing system is supplied with combustion air via separate primary air/secondary air systems. The primary air is systematically fed in below the grate, the secondary air above the grate via secondary air nozzles into the combustion process. The flue gases are treated in a special multi-step cleaning system according to the local requirements before leaving the stack into the atmosphere.

SCOPE OF SUPPLY

- Fuel Handling System
- Firing System
- Boiler
- Flue Gas Cleaning System
- Induced Draught Unit incl. Stack
- Ancillary Facilities
- Steam Turbine with Generator
- External Piping
- Air Condenser
- Ancillary Cooling Circuit
- Civil Part

ENGINEERING SERVICES

- Engineering incl. Approval Engineering
- Erection and Commissioning
- Trial Operation

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