



Port of Antwerp, Belgium - SEGHERS waste-to-power plant
150 MWth Power plant

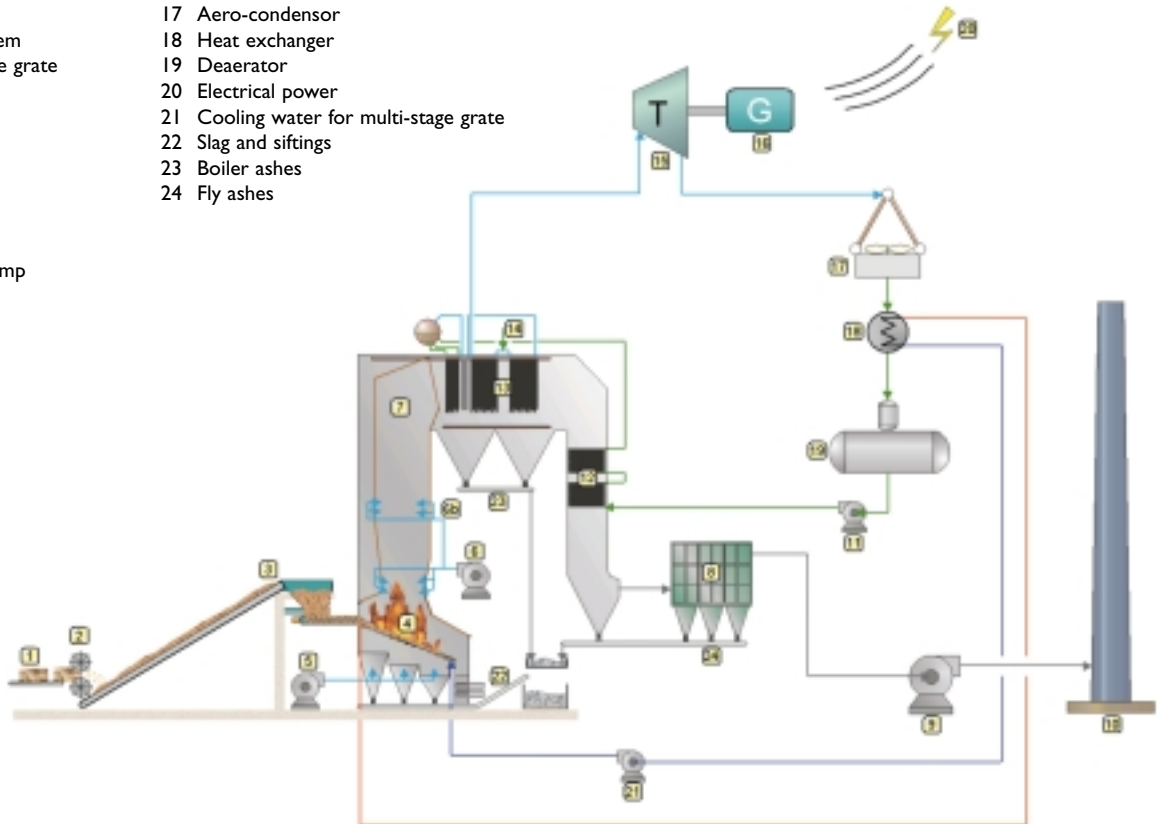
Our experience with salty and alkali-rich residues enables us to guarantee high performances for difficult biomass streams or biomass mixtures.

Depending on local requirements, SEGHERS better technology can offer a range of proprietary flue gas cleaning technologies, including catalytic and non-catalytic deNO_x, in-situ desulfurisation, and wet and semi-wet scrubbing.

The SEGHERS fully-automated process control system enables reliable, continuous operation. On-line assistance from the SEGHERS Technology Centre control room is available.

The biomass boiler is fully integrated with the furnace to ensure optimal temperature control, maximal energy recovery, and minimal maintenance requirements. The boiler design is optimised towards progressive dust collection, thus limiting boiler fouling. The temperature profile of the boiler - both gas-side and water-side - ensures minimal fly ash deposition on boiler tubes and minimises corrosion. Steam parameters are tailored to the needs of the steam consumer: e.g. 16 bara saturated for process steam or 60 bara superheated steam for power generation.

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| 1 Conveyor system | 16 Generator |
| 2 Biomass crusher | 17 Aero-condensor |
| 3 Furnace feeding system | 18 Heat exchanger |
| 4 Furnace + multi-stage grate | 19 Deaerator |
| 5 Primary air | 20 Electrical power |
| 6 Secondary air | 21 Cooling water for multi-stage grate |
| 6b Tertiary air | 22 Slag and siftings |
| 7 Boiler/ Evaporator | 23 Boiler ashes |
| 8 Baghouse filter | 24 Fly ashes |
| 9 ID-fan | |
| 10 Stack | |
| 11 Boiler feed water pump | |
| 12 Economisers | |
| 13 Superheaters | |
| 14 BFW injection | |
| 15 Turbine | |



Biomass fired power plant process diagram