

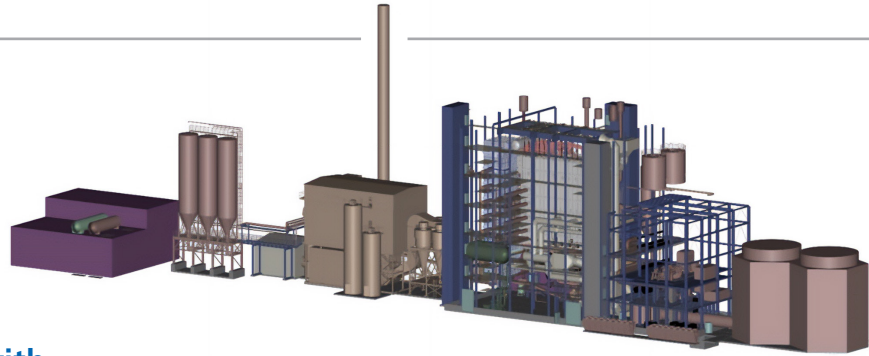
REFERENCE SHEET

Service for Biomass Thermal Power Plant | A&U Wielsbeke



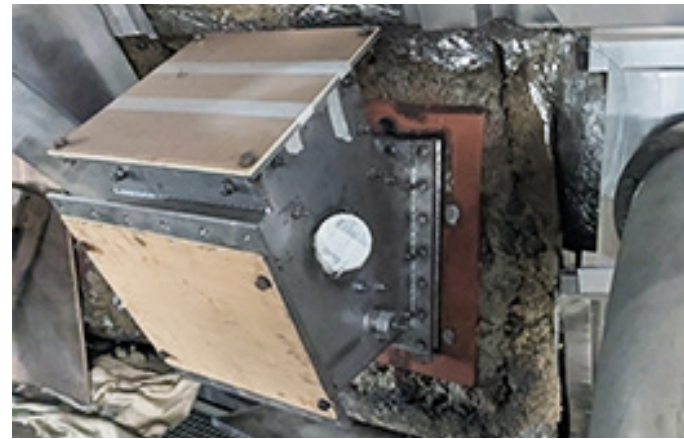
INCREASED PRODUCTIVITY





Biomass-fired power plant with bubbling fluidized bed technology

Owing to its low emissions and high fuel flexibility, a BFB firing system was implemented for this project. The plant, with a maximum firing capacity of 90 MW, utilizes demolition wood A1 – A4 according to the German Altholzverordnung. Besides wood chips, the plant can be fired with up to 50% wood dust, which is separately injected in the combustion chamber. In addition to 20 MW from electric output of the condensing steam turbine (with air cooled condenser), the CHP supplies 30 t/h of MP steam (via turbine bleed steam and secondary generator) and up to 10 MW heat to a thermal oil system for nearby consumers.



Scope of Service

Supply and installation of four Gen 3 fuel injectors and Gen 2 drop shafts.

Key advantages compared to previous generation of fuel injectors:

- Increased serviceability allows for easy exchange of the installed wear plate
- Additional injection of recirculation gas to prevent blockages inside the fuel injectors
- Bolted boiler connection instead of welded connection

Key advantages compared to previous generation of drop shafts:

- Ceramic tiles used as wear protection
- Increased serviceability, allowing easy exchange of the ceramic tiles instead of exchanging entire drop shaft sections
- Segmented drop shaft allows for easier handling of the drop shaft due to decreased weight of the segmented components

Technical Data

Firing capacity	90 MW
Electrical Output	20 MW
Thermal output to external consumer	32 MW
Steam flow (MCR)	100 t/h
Steam pressure	75 bar(a)
Steam temperature	460 °C
Fuel	Waste wood A1-AIV, wood dust
Country	Belgium

Why DIEFFENBACHER Energy Service?

- Project delivered on time and on budget despite extremely challenging timeline
- In-house engineering that enabled quick reaction to unexpected challenges
- Coordination of several suppliers on site: DIEFFENBACHER Energy Service acted as a single point of contact

