

MW Power offers modularized Biopower 8 and Biopower 5 power plants for power generation and combined heat and power generation (CHP) in the capacity range of approx. 3 to 10 MW<sub>e</sub>.

## Biopower 8 modularized power plant

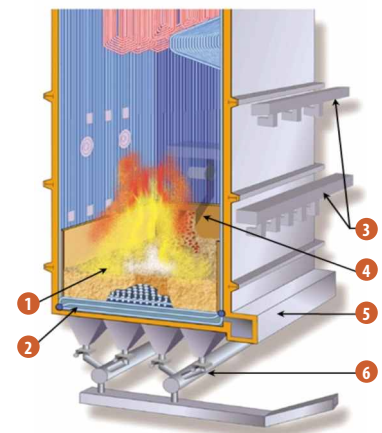
Biomass-fueled Biopower 8 plants incorporate bubbling fluidized bed combustion system with the Hydro Beam floor design to burn biomass with high combustion efficiency and low NO<sub>x</sub> and CO emissions. In Biopower 8 power plants, innovative layout and the benefits of modularity are combined. The Biopower 8 plant can use a wide variety of biomass feedstocks as fuel. The plants are clean and efficient and offer a practical solution to need for renewable energy supply with minimum environmental impact.

### Biopower 8 – BFB combustion

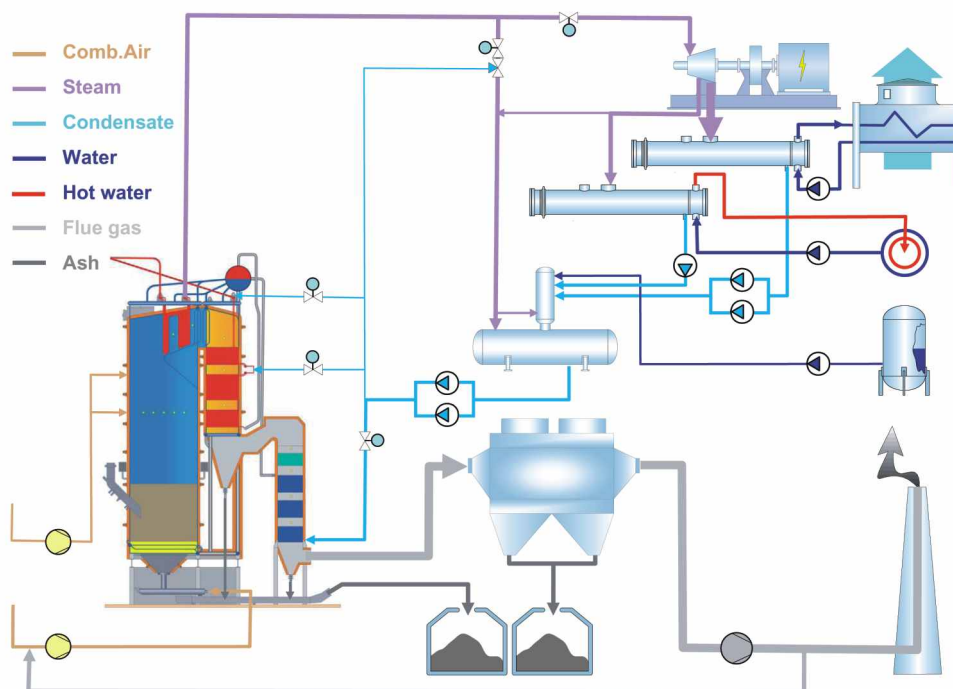
Bubbling fluidised bed combustion with Hydro Beam floor

- Developed for demanding fuels
- Totally water-cooled air beams
- Open bottom design with free area over 30% of cross section
- Excellent removal efficiency of coarse impurities
- Metso Power's patented design

- 1 Fluidized bed
- 2 Hydro Beam floor
- 3 Secondary air
- 4 Fuel feeding
- 5 Primary air
- 6 Bottom ash removal



### Biopower 8 CEX flow chart



## Biopower 8 performance data

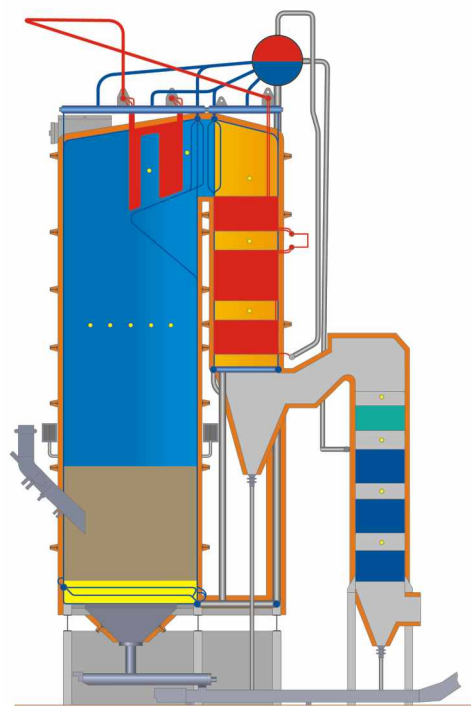
Biopower 8 90 bar(a) 480°C Boiler output 29 MW BFB Combustion				
Plant type	MW <sub>th</sub>	MW <sub>e</sub>	MW <sub>fuel</sub>	Note
Biopower 8 DH	20,5	8,0	33,0	90/50°C DH water
Biopower 8 CEX	0 - 14	7,6 - 9,4	33,0	105/70°C DH water
Biopower 8 C	-	~9,6	33,0	Power only (cooling water 28/38°C)

Subject to changes without further notice

## Biopower 8 boiler

Membrane wall steam boiler with natural circulation

- Steam output 29 MW
- Feed water temperature 105°C
- Feed water pressure 104 bar(a)
- Operation pressure 94 bar(a)
- Steam temperature 485/505°C
- Steam flow 36 t/h
- Temperature in stack exit 150 °C



MW Power is a joint venture by Metso and Wärtsilä. We provide medium- and small-scale power and heating plant solutions for sustainable energy generation, focusing on flexible utilization of local renewable fuels, as well as innovative technologies and service capabilities.

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