

Fjernvarme Horsens

[Horsens District Heating]



ABSORPTION HEAT PUMPS

New biomass heating plant

Fjernvarme Horsens is building a new biomass heating plant to provide heating customers with green district heating.

Enexio has delivered the plant's absorption heat pump, which is to cool the flue gas from the boiler in order to optimise fuel utilisation and efficiency. The heat pump, which is Denmark's largest, breaks all records. The total heat output from the machine is 17 MW, the heat pump is 12 metres long and when in operation weighs a total of 120 tonnes.

The machine is of the two-stage type, i.e. it works with two separate absorber/evaporator chambers, enabling flue gas cooling right down to 10°C. The extremely efficient cooling of the flue gas helps to optimise fuel utilisation. The machine is powered by hot water from the boiler, which is supplied to the heat pump's generator at 170°C.



The absorbed energy from the flue gas is used in the heat pump to heat the district heating water to 85°C, which is delivered direct to the town's district heating network.

