

WASTE-TO-ENERGY PLANT

Filbornaverket Helsingborg, Sweden

The waste-to-energy plant in Helsingborg produces steam, district heating and electricity. The plant was handed over to the customer Öresundskraft in early 2013.



Before 2013, the household waste from the citizens of Helsingborg was transported to other waste-to-energy plants in Sweden. But now they themselves enjoy electricity and heat from their own waste.

The main fuel for Filbornaverket is combustible fractions of waste from households, industry and businesses, and the plant makes it possible to use the region's large quantities of combustible waste to produce electricity and district heating for the local grid.

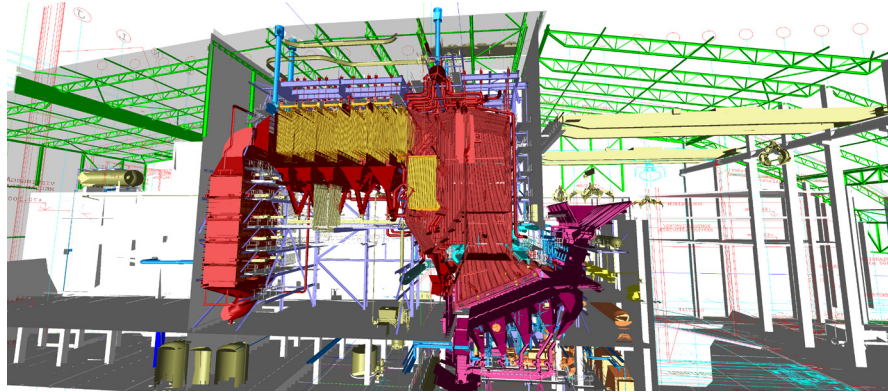
Filbornaverket is able to burn approx. 200,000 tonnes of waste per year – with an overall thermal efficiency of 100 %.

The investment of the new waste-to-energy plant is measured to be about 1.85 billion SEK, and it is one of the largest investments in Helsingborg's history.



QR-code: Scan the code and see our waste-to-energy reference list on our website

Filbornaverket Helsingborg, Sweden



Our scope of supply

The project scope includes a combustion system with waste crane, steam boiler with superheaters and economizers, and an electrical system. The boiler is equipped with a water-cooled DynaGrate® and an advanced combustion control system. DynaGrate® is distinguished by its reliability and suitability for high calorific fuel.

To reduce maintenance costs, the boiler design also includes water-cooled wear zones protected with Inconel®.

Inconel® is a high-strength, corrosion- and oxidation-resistant material that forms a thick, stable, oxide layer for protection of surfaces. It is an investment that provides considerable long-term financial benefits.

In cooperation with Götaverken Miljö

Our subsidiary Götaverken Miljö AB has supplied the flue gas cleaning and energy recovery systems together with Alstom Power Sweden AB.

The partnership with Götaverken Miljö ensures that the boiler, the combustion- and flue gas cleaning system for the Filborna plant is designed and project managed by in-house resources. The cooperation and our complementary skills create synergy to produce the entire technology supply more efficiently and at a higher quality.

Together, our experts are able to offer our customers one of the most climate-friendly solutions on today's market.

Data plant sheet		
Process parameters	Values	Units
R1 value	1.41	
Waste capacity	27	t/h
Heat value, lower	10	MJ/kg
Steam output	88.7	t/h
Steam temperature	425	°C
Steam pressure	49	bar
Gross electric output	17	MW
District heating output	58	MW
Boiler outlet flue gas temp.	160	°C
Feed water temperature	130	°C

Flue gas values: * After cleaning	Values**	Units
NO _x ***	80	mg/Nm ³
CO****	50	mg/Nm ³
NH ₃ ***	<15	mg/Nm ³
TOC	<5	mg/Nm ³

* The plant limit values comply with the EU Directive on Waste Incineration. Naturally, the plant is equipped with a modern flue gas cleaning system.

** All values refer to 11% O₂ dry gas

*** 24-hour average

**** Half-hour average

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