

Energy-from-Waste Facility, Maha Sarakham, Thailand

VØLUND® WASTE-TO-ENERGY TECHNOLOGY

PROJECT CASE HISTORY



This Energy-from-Waste (EfW) facility, located in the province of Maha Sarakham in central northeastern Thailand, will feature state-of-the-art steam generation, combustion and environmental technologies from Babcock & Wilcox Renewable (B&W).

Anticipated to go into service in 2025, the plant is designed to generate electricity as well as steam for industrial use.



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Scope of Supply

B&W provided the combustion equipment and boiler design, including:

- DynaGrate® combustion
- Slag pusher
- Vølund® boiler design with multiple pass furnace, horizontal convection pass and economizer
- Water sootblowers
- Waste fuel feeder system
- Adaptive selective non-catalytic reduction (SNCR) system for nitrogen oxides (NO_x) control
- Construction and commissioning advisory services

Facility Facts

- DynaGrate combustion technology chosen because of its fuel flexibility
- Waste fuel can be supplemented with refuse derived fuel (RDF)
- Plant's single line designed to process nearly 25 t/h of waste fuel
- Plant capable of generating up to 10 MW of electricity

Plant Design Data		
Process parameters	Value	Units
Waste capacity	24.69	t/h
Heat value (LHV)	5.0 to 12.0	MJ/kg
Maximum continuous rating (LHV)	9.71	MJ/kg
Steam output	80	t/h
Steam temperature	440	°C
Steam pressure	60	bar
Electricity (per year to grid)	80	GWh

Plant Emissions Data		
Process parameters	Value	Units
Total organic carbon (TOC)	< 3%	
TOC expected	< 1%	
Nitrogen oxides (NO _x)	≤ 100 (daily)	Mg/Nm ³
Carbon monoxide (CO)	≤ 40 (daily)	Mg/Nm ³



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