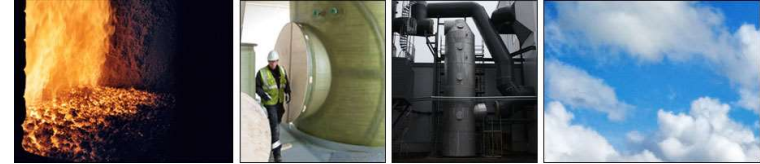




Condens Heat Recovery Oy

CLEANING AND HEAT RECOVERY TECHNOLOGY

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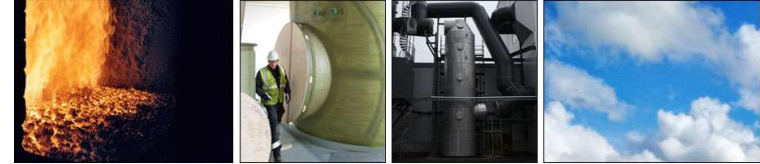


Condens Heat Recovery Oy

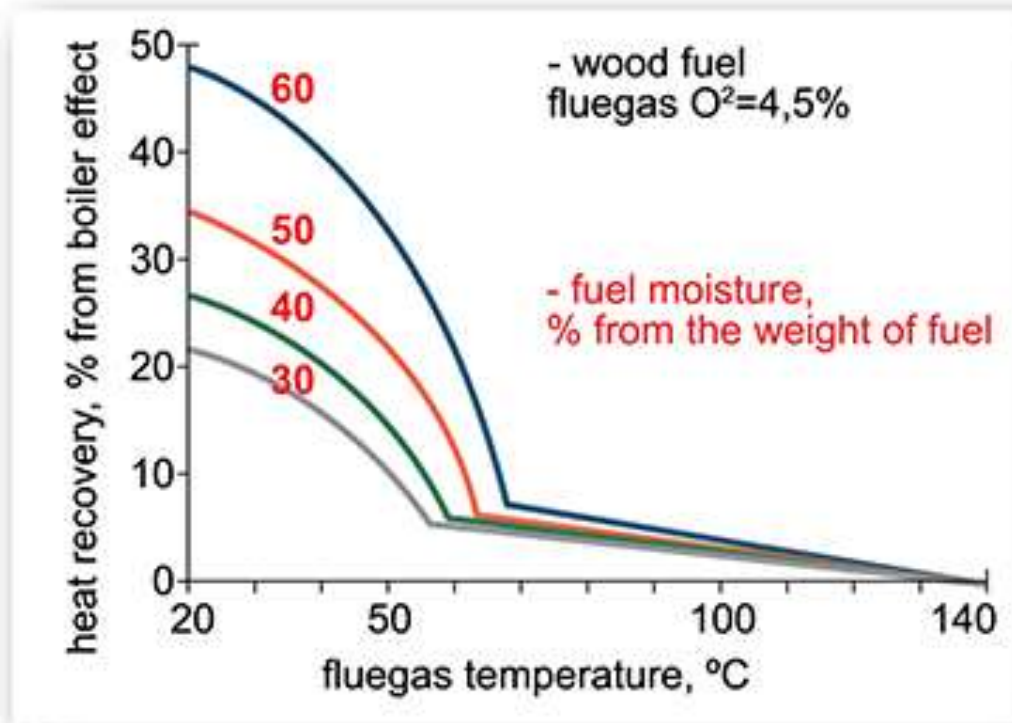
Condens Heat Recovery Oy designs and delivers effective and ecological solutions for flue gas heat recovery and gas cleaning.

- Turnover around 5 M€
- 10 – 15 employees
- Finnish family company founded by Mr. Ilkka Haavisto
- CEO Mr. Ville Haavisto
- Deliveries 151 across Western Europe, Nordic and Baltic countries

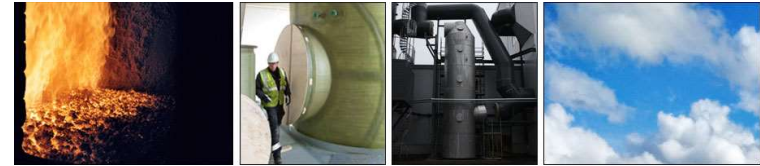




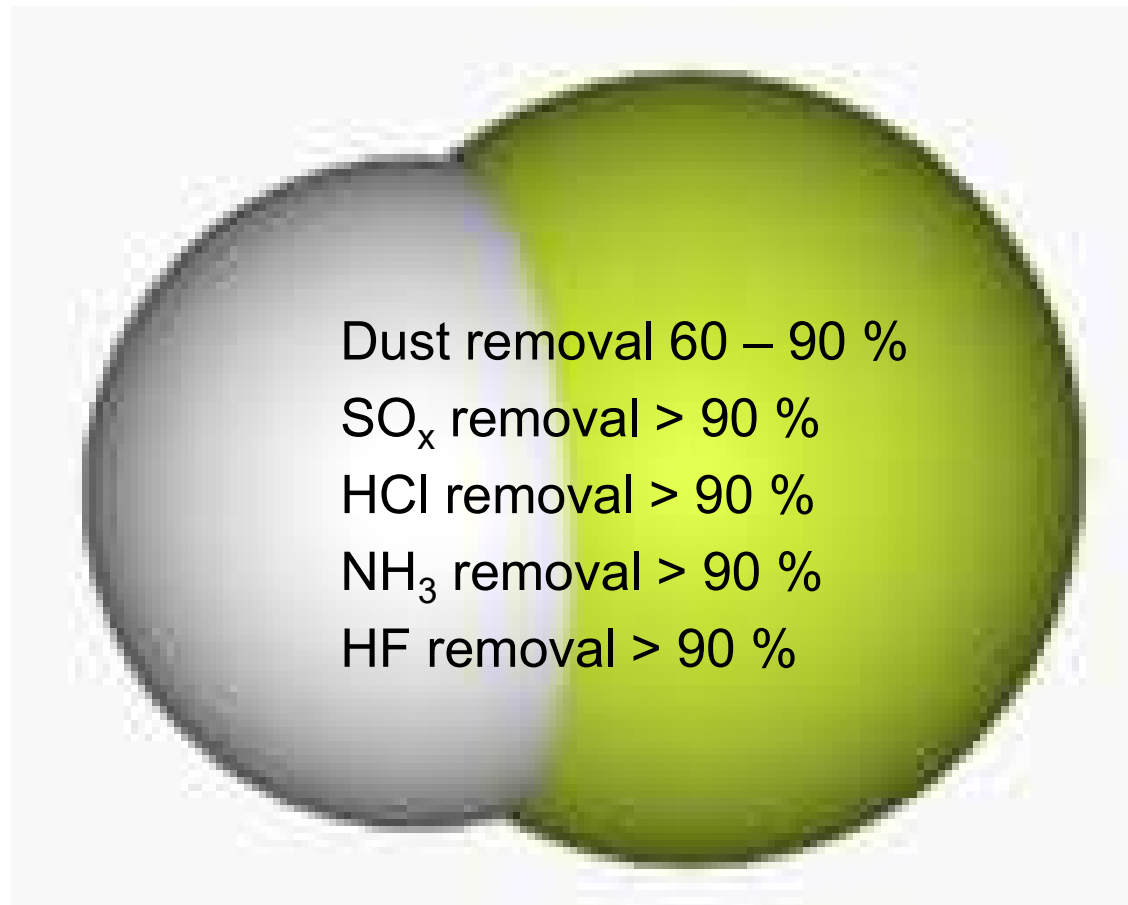
Where does the energy come from?



- Heat recovery 10 to 35 % of the boiler capacity
- Benefits are economical and environmental:
 - Less fuel is needed
 - Less CO₂ and other emissions
 - Flue gas is cleaned to meet environmental regulations

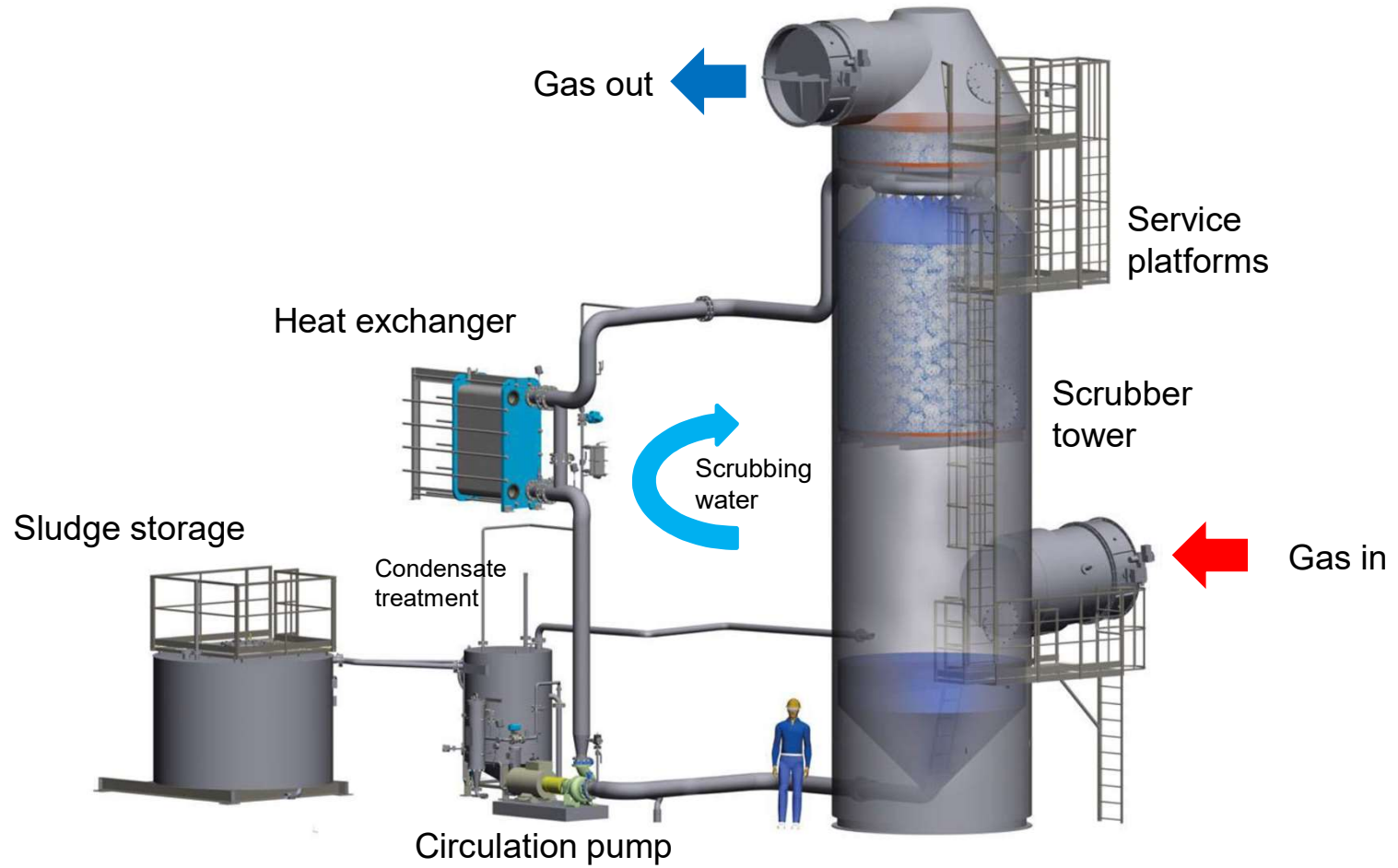
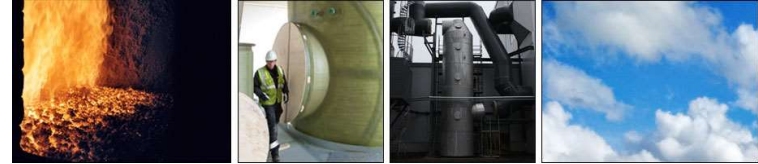


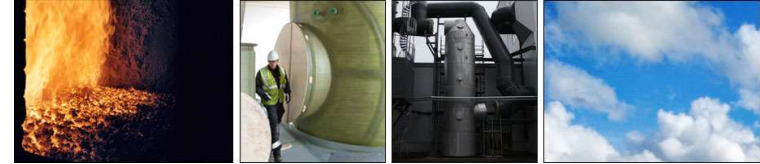
Gas cleaning





condens
heat recovery oy



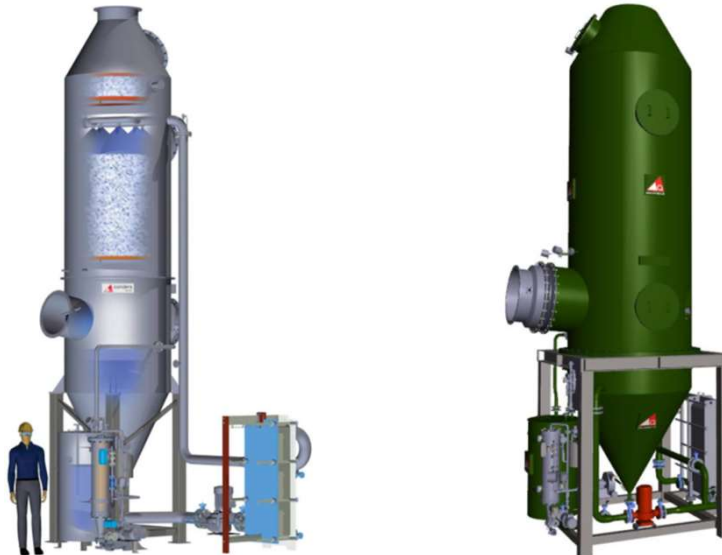


Tailored solutions for existing and new plants

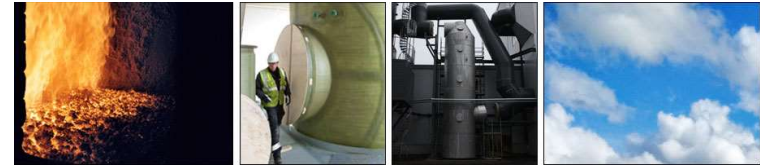
Outside or inside

Roof penetration
and stack on top

Metallic or fibreglass-
reinforced plastic
structure (for aggressive
gases)

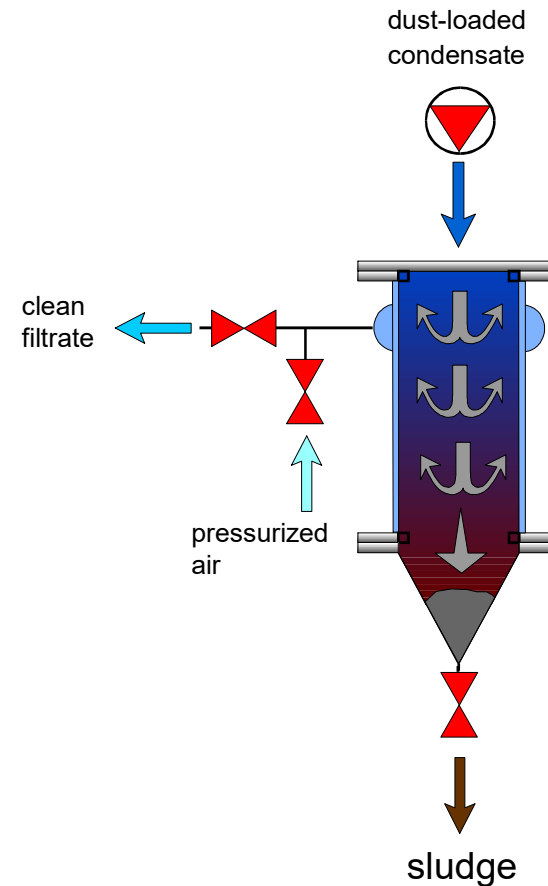


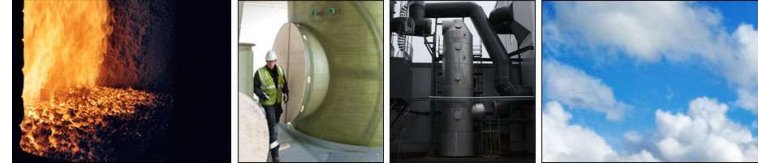
Small footprint



Effluent water treatment

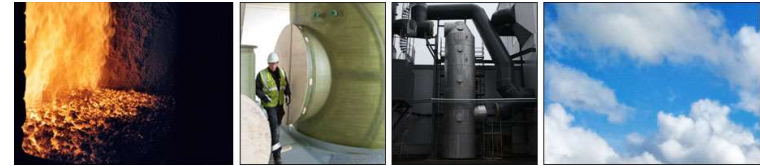
- Water is treated to meet to local regulations
- Also possible to recover low temperature energy for fuel storage, combustion air, office, etc. heating
- Particles < 10 mg/l
- Separation of heavy metals
- Sludge is stored or bagged for further treatment/disposal



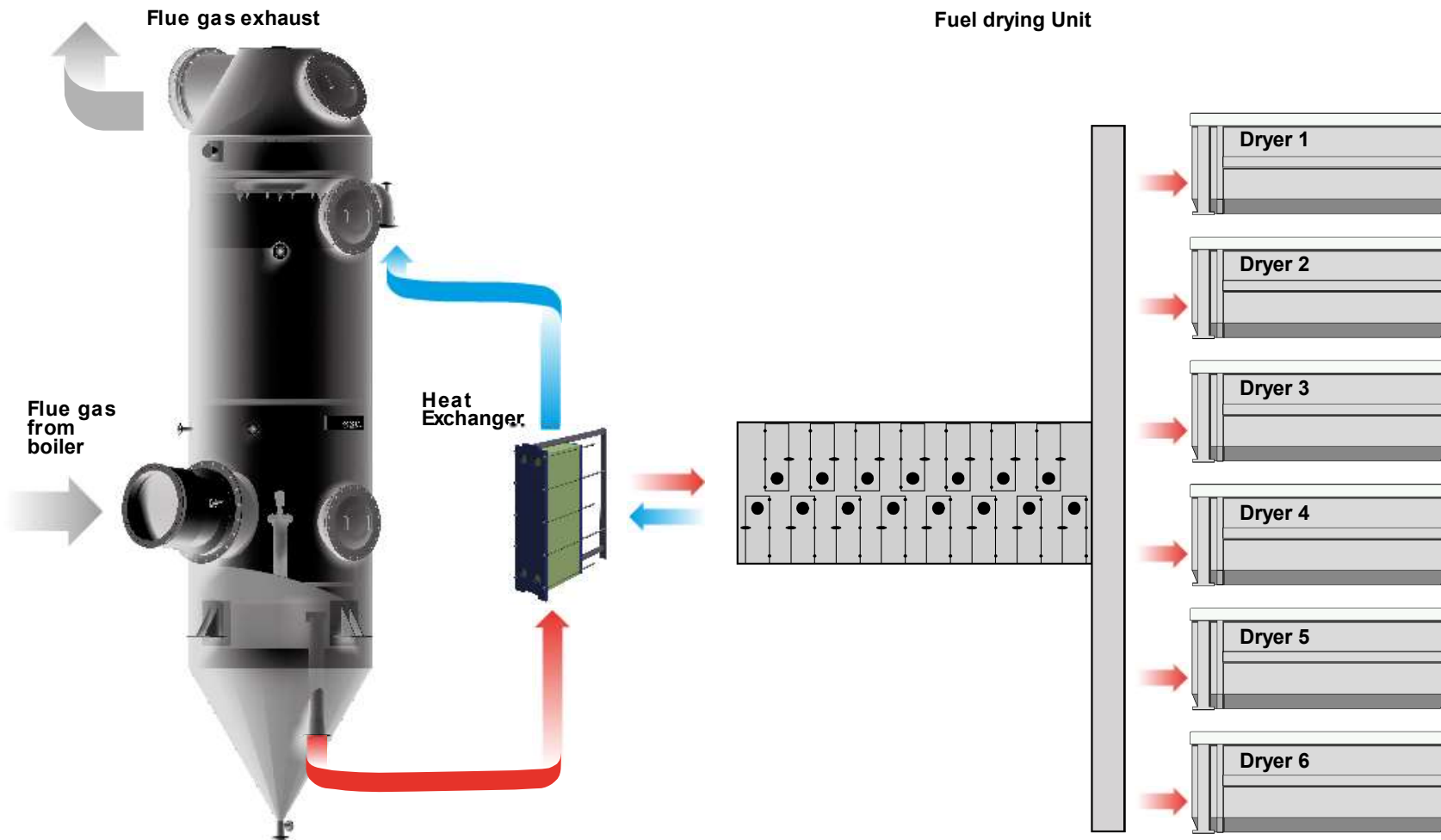


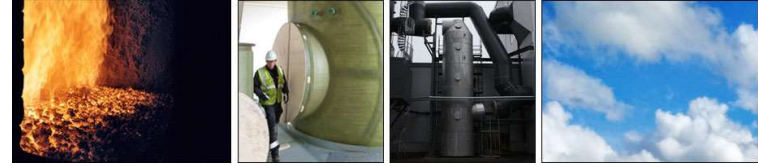
Applications

- Biomass or waste-to-energy heating plants
 - Biomass fuel (peat/wood chips, etc.) drying applications
 - Greenhouse heating applications
 - Wet gas cleaning for metallurgical/chemical industry. Can be combined with heat recovery for process heat.
-



Fuel drying application

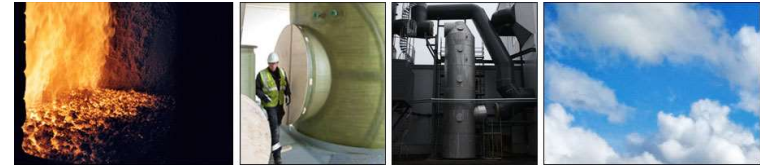




Examples of deliveries



condens
heat recovery oy



FLUE GAS CONDENSER

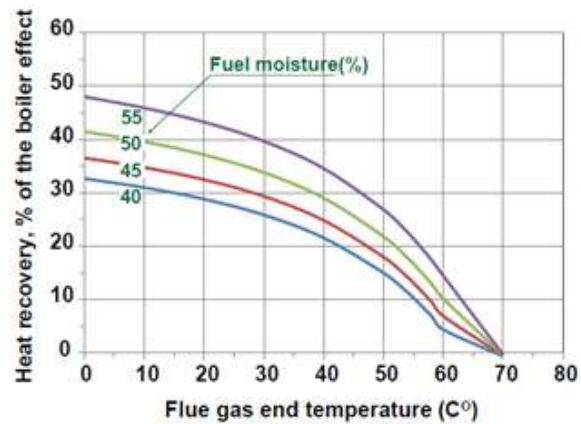
flue gas to the stack

Skuodas, Lithuania

THE DESIGN POINT

Boiler effect	5MW
Fuel moisture	50%
Return water temperature	45°C
Heat recovery	1091kW
Return water flow	23kg/s

HEAT RECOVERY 5 MW



flue gas from the boiler

water treatment unit

heat exchanger



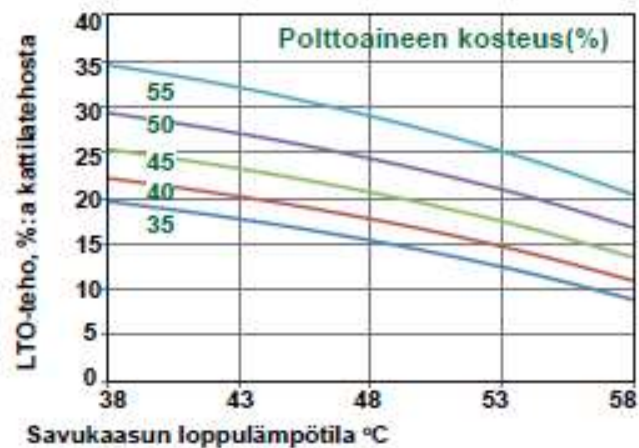


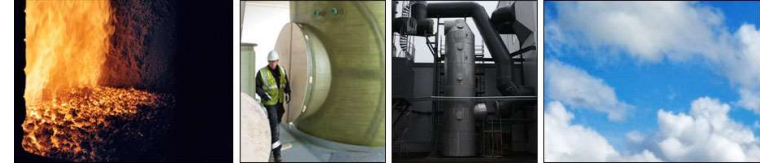
Imatra, Finland:

- One heat recovery unit per boiler
- Plastic construction
- Waste water treatment
- Sludge storage

Design point for one condenser:

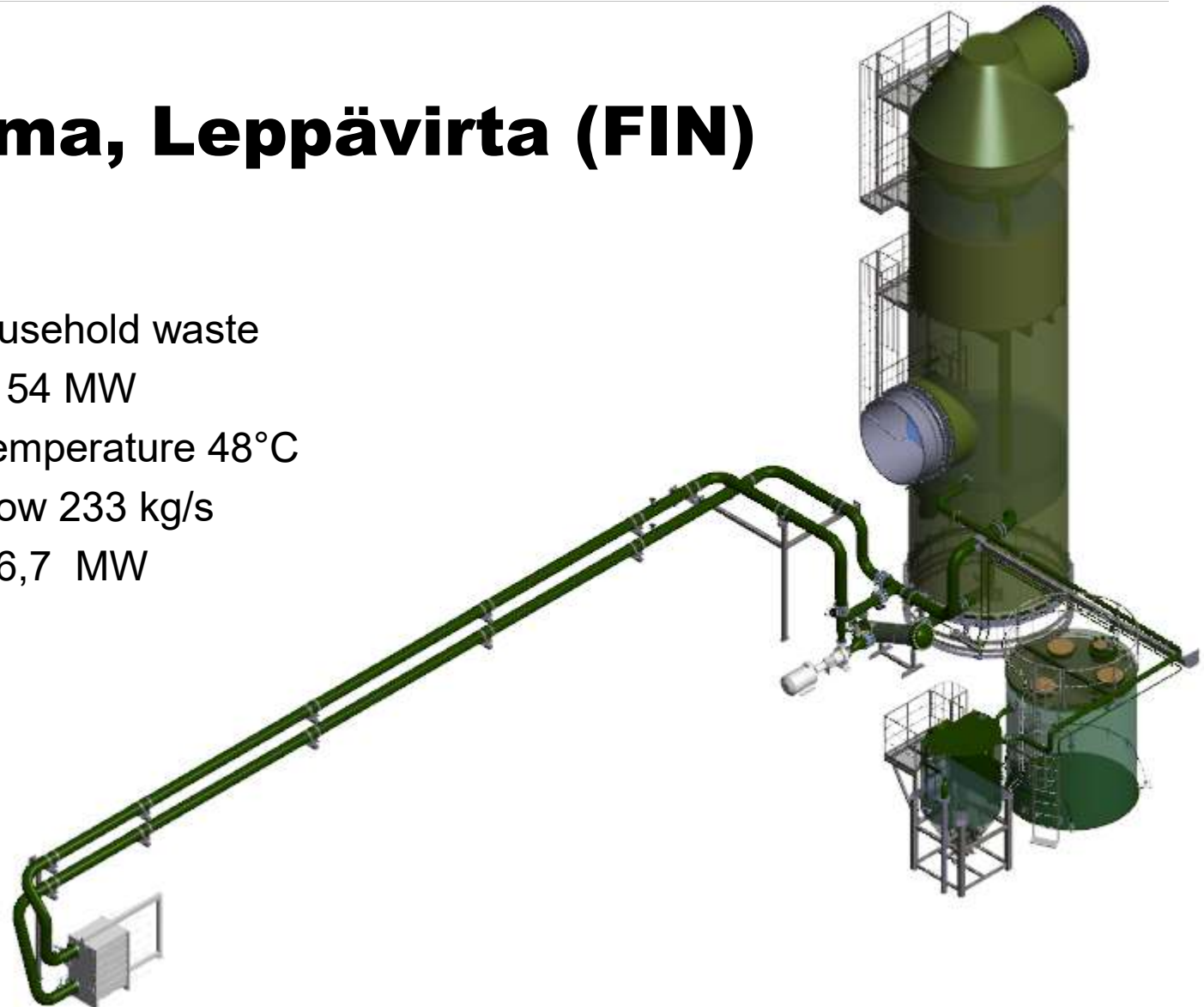
- Fuel moisture 55 %
- Boiler capacity 15 MW
- Return water temperature 54°C
- Heat recovery 3 MW

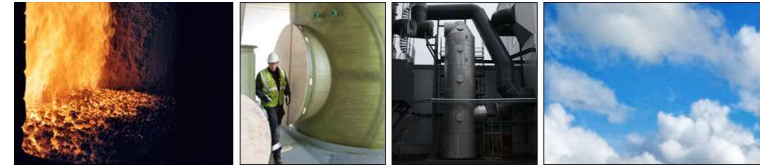




Riikinvoima, Leppävirta (FIN)

- Fuel: mixed household waste
- Boiler capacity 54 MW
- Return water temperature 48°C
- Return water flow 233 kg/s
- Heat recovery 6,7 MW



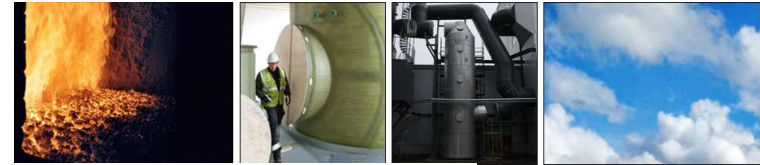


Rauhalahti, Jyväskylä (FIN)

Heat recovery and sulphur removal

- Fuel: peat, woodchips
- Heat recovery 28,5 MW
- Boiler effect 295 MW
- Delivery in co-operation with Andritz Oy





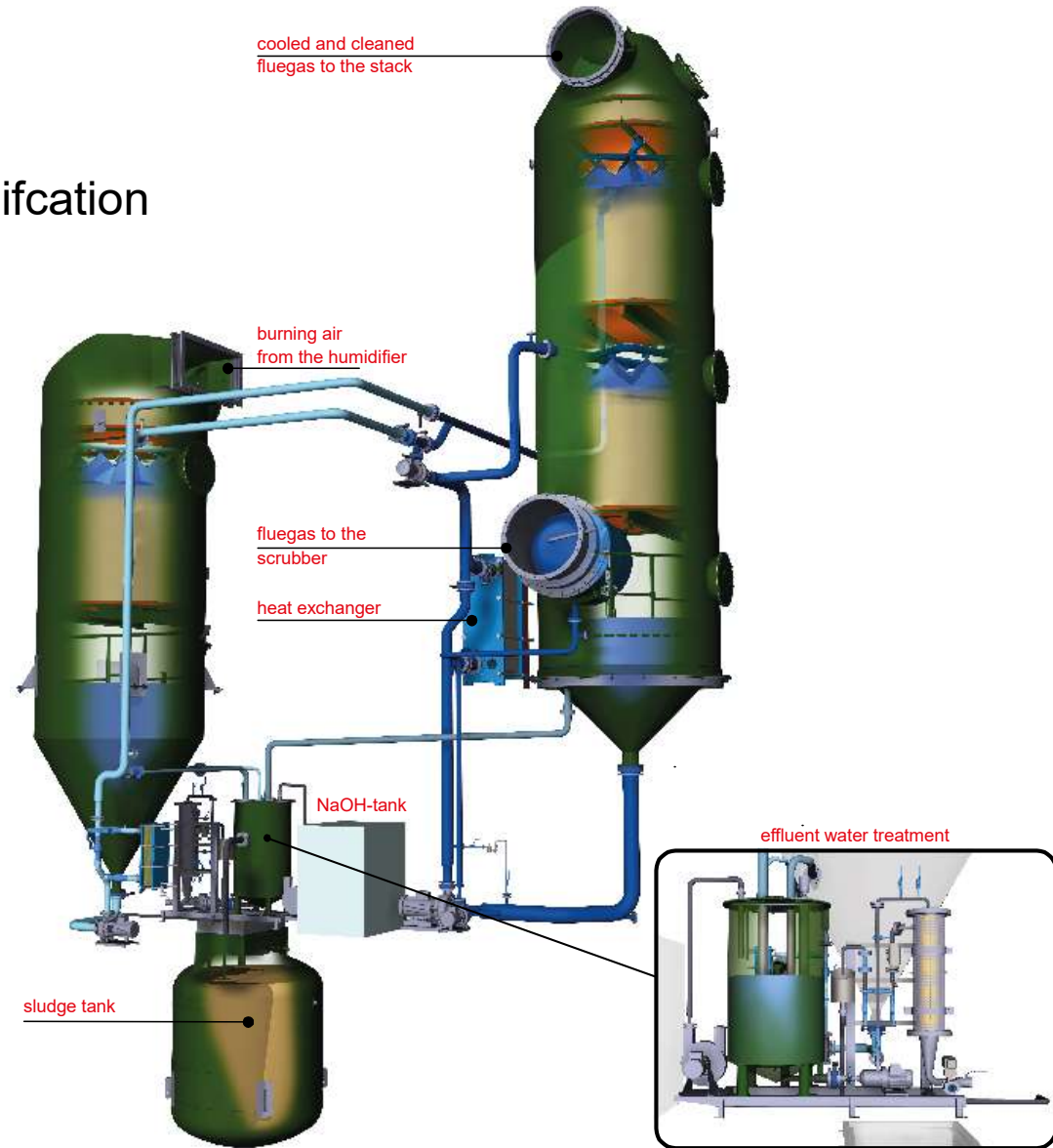
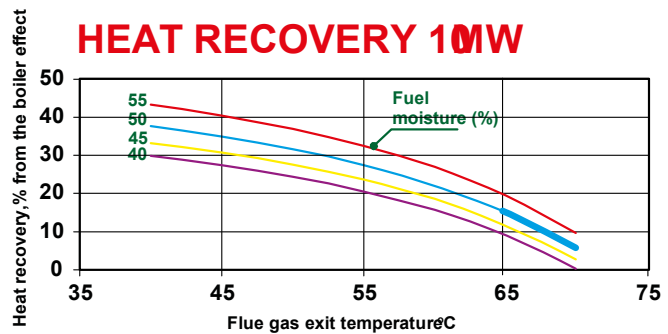
Varissuo (FIN)

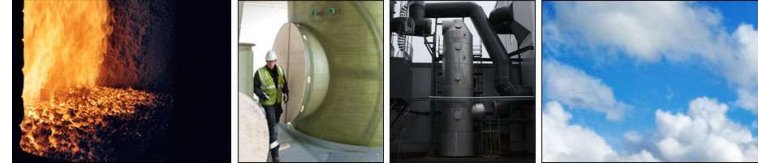
■ Delivery with burning air humidification for boosted heat recovery

SCRUBBER DESIGNPOINT

Boiler effect	10MW
Fuel moisture	50%
Return water temperature	45°C
Heat recovery	2900kW
Return water flow	50kg/s

HEAT RECOVERY 10MW





Contact

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