

7 Waste-to-energy projects in France for combustion specialist VYNCKE

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VYNCKE entered the waste-to-energy market in 2000 with a first RDF fired boiler plant and since then have experienced a surge in the demand of RDF-fired installations across the globe.



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In the global hunt for sustainable energy sources, RDF (Refuse-Derived Fuel) continues to emerge as a strong contender with several countries currently harnessing this fuel. Belgian combustion specialist, [VYNCKE](#) has been realising several RDF-fired installations in different parts of the world.

VYNCKE was selected by a Nordic energy provider to supply an RDF boiler for their brand-new district heating plant in the Swedish town of Säfte. They invested in a 10 MW superheated water boiler, designed to adhere to the stringent environmental regulations of BREF. At the heart of this plant is the VYNCKE technology – a combination of a semi water-cooled grate for fuels with high moisture levels and a fully water-cooled grate for the dry fuels. The new boiler in Säfte is robust and flexible enough to handle many different types of renewable and recycled fuels.

For the first project in the UK, availability of fuel wasn't a problem. They were dealing with the typical issues of land constrain on the island. To mitigate this, VYNCKE supplied a cogeneration plant that generates 45 tph of steam along with 8.5 MWe of electricity. With a plant capacity of up to 103,000 tons/year, this solution reduces the CO2 emissions by 12,000 tonnes per year – the equivalent amount of greenhouse gases emitted by 5,400 cars.

On the other side of the globe, VYNCKE supplied a CHP plant for Thailand's independent power producer. Because of the high content of plastics, thus a high heating value of the waste, the boiler is equipped with a specially adapted water-cooled grate for RDF. The plant produces 2MWe of electricity and 15tph of process steam for a neighboring factory.

Unleashing VYNCKE's expertise into the French market

In the years 2021-23 we saw a significant rise in interest in energy systems using waste from recycling plants. In France VYNCKE is building several RDF-fired energy plants and boilers fueled with demolition wood.

Jérôme Bearelle, Regional Account Manager France at VYNCKE: "Today, we are working on the realization of 3 RDF-fired projects in France. In a few weeks, in the Tarn-region, an 8 MW boiler will be fuelled by on-site produced RDF to supply superheated water for drying digestate from the methanization process. Another 20 MW cogeneration plant, running on locally-sourced RDF, will produce 3.8 MWe of electricity while providing 23 tph of steam to the industrial process of a French sawmill in the Vendée-region. Lastly, in the Haute-Pyrénées-region, we will install a 20 MW RDF-fired steam boiler. It will be operated by an energy contractor to assist a chemical producer in reducing its natural gas dependency while cutting down its CO2 emissions. The design of this boiler is future-thinking – meaning that it can be coupled with a steam turbine and made into a cogeneration plant!"

Under the large umbrella of RDF, demolition wood is a less complex and fully CO2-neutral form of RDF. Although the use of demolition wood as solid fuel is not so common in France, VYNCKE is in the realization phase of 4 demolition wood-fired projects.

Jérôme Bearelle: "Last year, we commissioned a 100% demolition wood-fired, 25 MW plant for a district heating network in the Marne region and are currently working on 4 other projects: a 12 MW thermal oil boiler in Maine-et-Loire for a brick producer; a 31 MW demolition wood-fired steam boiler, operated by an energy contractor for a chemical producer in the Rhône region; a 22 MW demolition wood-fired boiler scheduled to commission in 2024 in the Seine-Maritime region for an energy contractor; and lastly, in the Côtes-d'Armor region a milk producer will be powered by a 9MW steam boiler fuelled by demolition wood, here too operated by an energy contractor."

It is clear that the current trends in the global economy is fast heading towards future proofing of energy solutions. As part of the "France 2030" investment plan, the French Environment and Energy Management Agency (ADEME) is preparing to release 600 Million EUR between 2024 and 2027 in support of RDF-fired projects – a move believed to be lucrative for the economy and the environment. VYNCKE, with its century-long knowledge and expertise, is at the forefront of this sustainable revolution

To know more about the clean energy solutions of [VYNCKE](#), visit us at Pollutec from 10 to 13 October in Hall 4 - G 088, Lyon Eurexpo, France.

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