Eco-Stock® combined with power to heat

Recovering waste heat
and energy optimisation of a tunnel kiln

Valence d'Agen, Occitanie - France

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Industry

Top-of-the-range ceramics

Decarbonisation

700 tonnes of CO_2 saved per year*

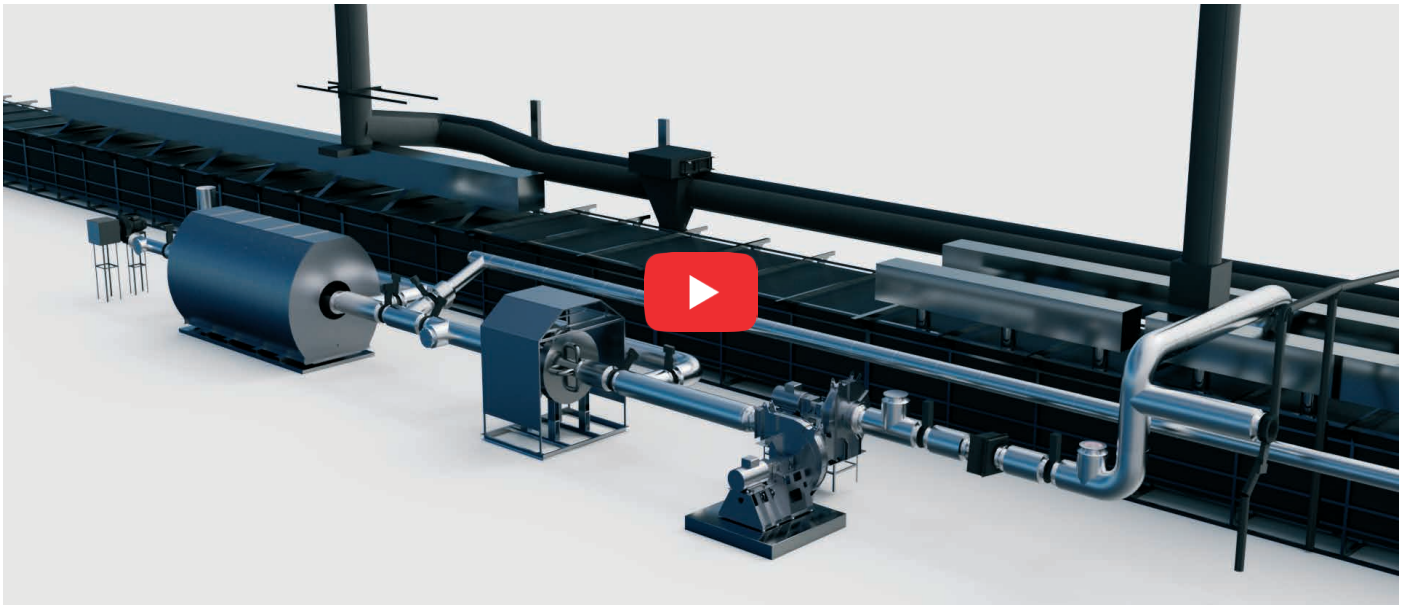
Energy savings

2810 MWh saved per year, equivalent to 10%

The project

Villeroy & Boch wants to bring about a real energy and environmental transformation of its production facilities at its Valence d'Agen site.

Eco-Tech Ceram is proposing to **recover waste heat from the kiln** by installing an Eco-Stock® heat exchanger on a continuous tunnel kiln coupled with power to heat.



*Based on an emission rate of 0.241 kgCO2/kWh consumed

Customer needs - requests

Villeroy & Boch wanted to carry out a real environmental and energy transformation of its production facilities in Valence d'Agen. The manufacturer called on Eco-Tech Ceram to prepare a comprehensive multi-year decarbonisation programme.

Project's objective

The main objective of this project is to demonstrate the Eco-Stock®, a solution for recovering waste heat by thermal storage, in a real environment on a European heavy industry production site. To do this, the Eco-Stock® will be adapted to the specifications of the industry's tunnel furnaces.

Description of the proposed solution

Our solution is based on 3 innovative concepts:

➢Materials: the development of ceramics from industrial waste, such as refractory ceramics for thermal storage.
➢The process: using these ceramics in an Eco-Stock® thermal energy storage unit.
➢Financial: the design of the financial scheme facilitating and eliminating the risks associated with the customer's purchase, based on the ESCO's investment.

Technical description of the solution

➢Recovery of high-temperature waste heat (> 500°C), which goes to the power to heat unit via fans.
➢Power to heat raises the temperature with low-carbon electricity.
➢At off-peak times, the heat from the flue gases is stored in the Eco-Stock® and at the same time recovered at the furnace inlet.
➢At peak times, only the heat stored in the Eco-Stock® is used in the tunnel kiln.

Eco-Stock®

Power to heat

The **energy transition** and the **decarbonisation** of industry are no longer unattainable challenges!

Contact us

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