



Biomass power plant (BEC) Hengelo

Design & Build of all civil engineering and construction aspects for the new Biomass Electricity Plant (BEC) in Hengelo.

The project

The project included a process building and storage hall.

The main fuel for this plant is construction and timber waste. Also the biodegradable wood waste from its own composting plant can be burned. Only biomass fuel is used, therefore all the electricity generated is green power. The BEC was the first stand-alone facility in Netherlands that could convert large-scale waste wood into electricity. This is approximately 140 000 tonnes per year. Twence can provide energy for about 44 000 households. The plant has an output of 35 MW.

The incinerator grate has an area of approx. 100sqm. The boiler walls weigh several hundred tons. The walls and the incinerator grate are the most important parts of the boiler house. The delivery hall and the conveyor belts form the initial part of the process. The most innovative aspect of this facility is the buffering and flow of fuel through a so-called "walking floor". By working with four separate floors the supply can be regulated, both in terms of type of biomass and in terms of speed. In this way the various biomass streams are optimally mixed before they are burned on the grate. This concept offers the possibility of biomass streams with different fuel combustion values. Another advantage is that there is less wear and tear on the boiler walls.

Main Contractor

Visser & Smit Bouw had a Design & Build contract with Standardkessel and was therefore responsible for the architectural and civil engineering aspects and services installation. The Engineering Department of Visser & Smit Bouw was responsible for all the associated design work.

Learn more?

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Facts and figures

Site

Hengelo

Client

Standardkessel GmbH

Status

Completed

Contract type

Design & Build Turnkey

Management

Twence B.V.