

# Plant Profile:

Sewage sludge incineration  
Flanders, Belgium

# **DOOSAN**

## Lentjes

Doosan Lentjes has been contracted to supply the new sewage sludge treatment plant in the Flemish region of Flanders. As part of the turnkey project, Doosan Lentjes will be responsible for the design, delivery, erection and commissioning of all mechanical and electrical equipment. The commissioning of the new plant in the port of Ghent is scheduled for 2026.

### Supplies & Services

- Planning, delivery, erection and commissioning of the entire mechanical and electrical equipment

### Customer benefits

- Safe disposal of sewage sludge
- Recovery of phosphorus from separated ash possible
- Maximum combustion efficiency and energy self-sufficient operation of the plant
- Low emissions according to BREF (Best Available Techniques Reference) requirements

Photo credit: FOSTER



# Safe sewage sludge disposal in Belgian Flanders

The client is the Flemish municipal wastewater company Aquafin, which awarded the DBFMO contract for the new plant to FOSTER, a consortium of BESIX Group and Indaver NV.

The new plant will comprise one process line, including a bubbling fluidised bed furnace, steam generator, multi-stage flue gas cleaning and water-steam cycle. Once completed, the new sewage sludge treatment plant, which will be one of the largest in Europe, will thermally process 65,000 tonnes of dry substance per year. Mono-combustion will make it possible to extract valuable phosphorus from the separated ash in a further process step.

The multi-stage gas cleaning system reliably removes all relevant pollutants such as nitrogen oxides, acid gases, hydrocarbons and heavy metals from the flue gas. Strict emission requirements in accordance with the European BREF (Best Available Techniques Reference) directives are fully complied with.

The customer will be able to realise a reliable and future-proof disposal of municipal sewage sludge in the Ghent region with the help of the Doosan-Lentjes technology.

## Key project data

<b>Client</b>	Aquafin NV
<b>DBFMO contractor</b>	FOSTER (Consortium of BESIX Group and Indaver NV)
<b>Location</b>	Ghent, Belgium
<b>Contract award</b>	2022
<b>Fuels</b>	Dewatered sewage sludge (27 % DR <sup>(1)</sup> ) Dried sewage sludge (90 % DR <sup>(1)</sup> )
<b>Total plant capacity</b>	65,000 t/a DS <sup>(2)</sup>
<b>Throughput per line</b>	15.7 t/h dewatered sewage sludge 4.3 t/h dried sewage sludge
<b>Heating value</b>	Approx. 3.7 MJ/kg
<b>Number of lines</b>	1
<b>Combustion technology</b>	Bubbling fluidised bed
<b>Boiler type</b>	Steam generator
<b>Steam parameters</b>	400°C / 41 bar(a)
<b>Thermal capacity</b>	20.7 MW <sub>th</sub>
<b>Power / district heating generation</b>	No

<sup>(1)</sup> DR: Dry residue

<sup>(2)</sup> DS: Dry substance

Doosan Lentjes provides proprietary environmental technologies for thermal waste treatment and energy generation. Our areas of expertise include the incineration of renewable fuels such as waste, sewage sludge and biomass, heat recovery systems and flue gas cleaning equipment. We deliver flexible solutions for long-term waste disposal safety and climate-friendly steam and power generation.

As a member of the global Doosan Group, Doosan Lentjes is part of a strong international network of companies providing complementary technologies, skills and value to customers the world over.

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