

Demonstration sites in Belgium

Aquafin owns and operates 281 wastewater plants in Belgium, varying in size and composition. Therefore, each technique can be demonstrated in an appropriate setup. 7 innovative solutions for reuse of water, recovery of valuable substances and resource efficiency are demonstrated.

WWTP Aarteselaar, Pilot plant

The pilot testing will be done in Aquafin's demo-site in Aarteselaar, Belgium.

The size of the reactor is comparable to a small scale WWTP of 1.000 PE. The bioreactor has a volume of approximately 138 m³ and a water depth of approximately 4 m. Therefore, this reactor is ideal to do some aeration tests which require interruption of normal operation and can therefore not be performed at a full scale WWTP without endangering the effluent consents.

WWTP Beveren

After the pilot scale tests, the full scale tests will be organized in WWTP Beveren.

The WWTP has a size of 50.000 PE. The aeration volume is 2 x 7.000 m³ and the water depth is 6 m.

Brugge: WWTP and incineration plant

The treatment plant of Brugge treats 265.000 people equivalents, which makes it the biggest plant of the Flemish region. The incineration plant is a mono-incineration (only municipal sludge burnt), fluidized bed type.



Brugge: Mono-incineration plant

WWTP Antwerpen-Zuid

WWTP Antwerpen-Zuid is connected to house-hold and industries for about 190.000 people equivalents. The WWTP is composed of pre-treatment, anaerobic compartment, aerobic tanks (4 tanks with alternating scheme), 9 clarifiers.



Aeration basins and secondary settlers of WWTP Antwerp-Zuid

WWTP Harelbeke

The WWTP of Harelbeke (116.000 PE) consists of a classical activated sludge process. After the usual mechanical screenings, the water is sent through a sand trap, travels through an anaerobic zone, then undergoes aeration, and is finally settled in circular settling tanks before being discharged in the nearby receiving watercourse.

WWTP Wijer

The tests will be performed at Aquafin's WWTP in Wijer (1.600 PE), a full scale WWTP that started working in the end of 2013.

WWTPs Leuven, Geraardsbergen, Mechelen-Noord and Genk

For the demonstration of hydrothermal carbonization (HTC) of Aquafin sludges, municipal waste water sludge of 4 waste water treatment plants will be collected from the WWTP's of Leuven, Geraardsbergen, Mechelen-Noord and Genk.