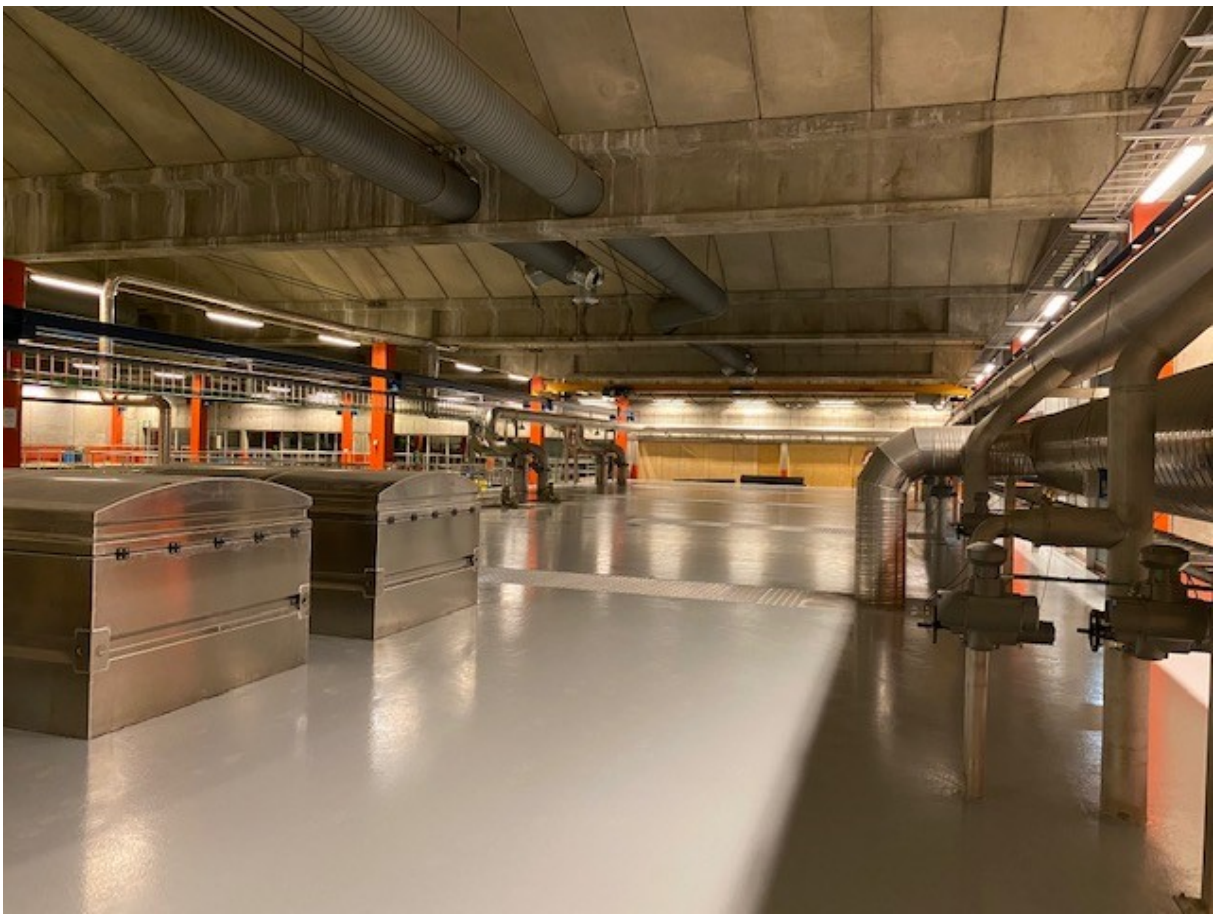
Product factsheet

Hias Process

Hardware product or technological device
Methodology or process



Description

The Hias Process is a biological nutrient removal process for wastewater. The process is based on moving carriers (MBBR) with biofilm that is shifted between anaerobic and aerobic conditions for EBPR-performance. Also nitrogen removal by simultaneous nitrification and denitrification (SND) is taking place in the aerobic part of the reactor but in different layers of the biofilm. The process is a very efficient and environmentally friendly way of treating wastewater. The potential for P-recovery from sludge without precipitating chemicals is huge.

Target audience

Wastewater treatment plants Colaborating solution suppliers

Actors, their roles and interactions

The process is developed at Hias IKS, an inter municipal water and wastewater utility in Norway, and the first full scale plant was build at Hias WWTP in 2016. The full retrofit of Hias WWTP to the Hias Process was carried out in 2020 and 2021 in a cooperation between, the utility/end user Hias IKS, the tecnology provider Hias How2O and the contractor ENWA.

Unique selling points

- Excellent P-removal from wastewater
- No precipitating chemicals
- Low CO2 footprint
- High potential for p-recovery

Technical requirements

Normal water and wastewater engineering and operator skills

Publications

Saltnes, T., Sørensen, G., Eikås, S., Biological nutrient removal in a continuous biofilm process, 2017, Water Practice and Technology 12(4):797-805.

URL

http://www.hias.as

Technology applied by the product

- **Biological systems**

Costs

Totally dependent on the size of the installation

Last update: 2024-04-22

Case Study applying the product

Hias IKS



https://mp.watereurope.eu/d/CaseStudy/43

Related tags

wastewater | phosphorus recovery | wastewater treatment technologies | Biological treatment | Nutrient recovery | Closing water cycle