

BIOSOLIDS

Digelis® TH

Advanced Anaerobic Digestion of municipal sludge with Thermal Hydrolysis



Thermal hydrolysis disintegrates the cell structure of bacteria into an easily digestible and dewaterable product

Digelis® TH is SUEZ's advanced digestion technology that reduces the final quantity of dewatered sludge (cake) by half based on thermal hydrolysis of biological or mixed sludge.

Cake volume

divided by

2

compared to a treatment line without digestion

Reduce the volume of cake by 50% while boosting digestion

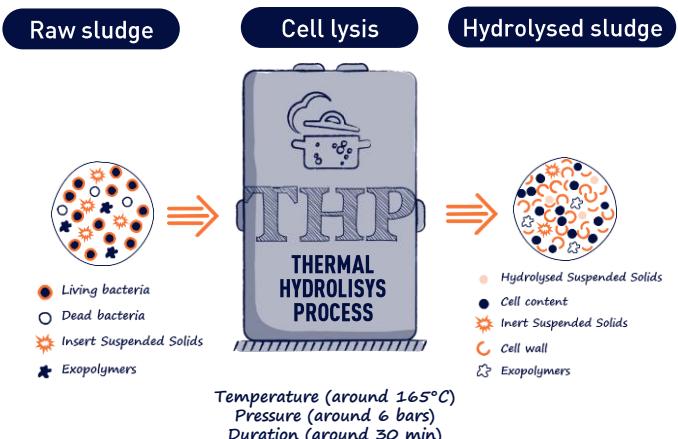
⇒ **Performance**

Digester volume reduced by half and a 5 to 10 %pt. increase in final cake dryness

⇒ **Savings**

Reduction of cake disposal cost

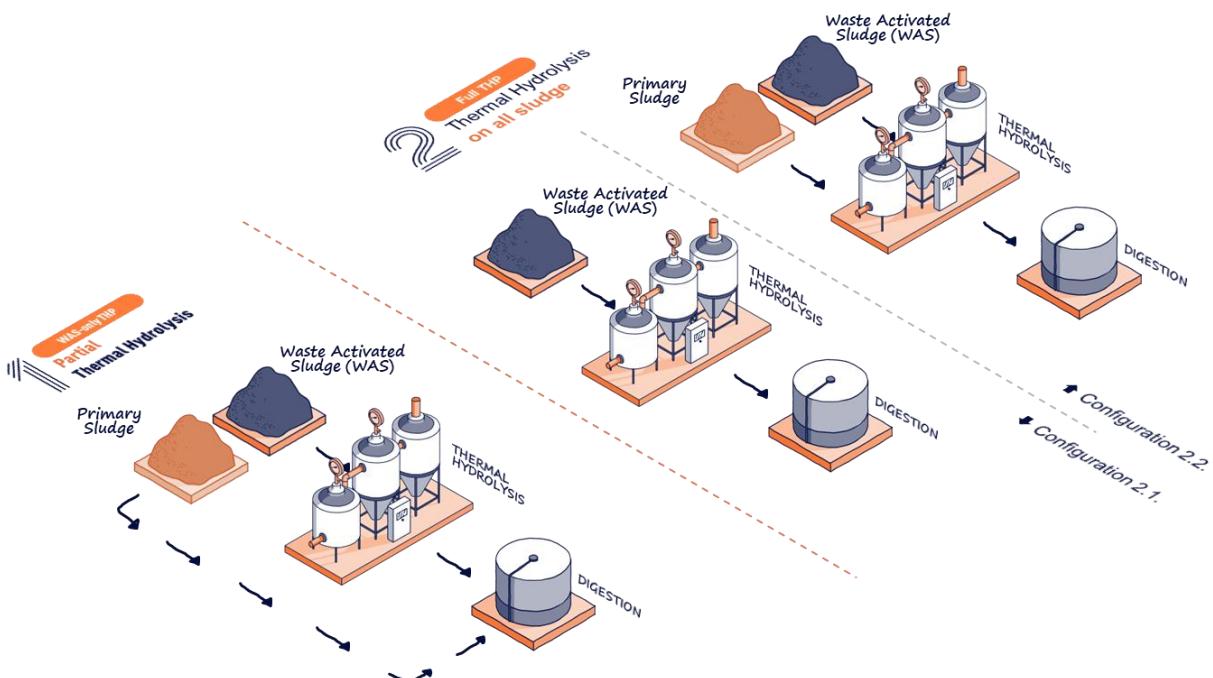
Raw sludge



The Digelis® TH technology...

For new facilities (greenfield), Digelis® TH reduces sludge disposal costs and potentially increases biogas production, depending on the type of sludge processed. In plant extensions (brownfield), Digelis® TH can be integrated to double the existing digester capacity.

The process involves subjecting pre-dewatered sludge to thermal hydrolysis in a reactor at 165°C for 20 to 30 minutes. The hydrolyzed sludge is then transferred to a pressure-reducing reactor (flash tank), where the abrupt drop in pressure further breaks down cell structures. Once cooled, the hydrolyzed sludge is sent to anaerobic digestion, converting volatile matter into biogas. This biogas fuels the boiler to produce the steam required for the process and/or for cogeneration. After dewatering, the digested sludge achieves approximately 30% dryness.



... what can it do for you

Savings

- Up to 40% of sludge disposal costs thanks to the reduction in sludge cake volume
- Ability to double the digester capacity for existing installation

Performance

- Increased dryness from 5 to 10 %pt. compared to a conventional digestion
- Increase of biogas production by up to 50% for waste activated sludge
- Up to 15% increase in electricity generation (CHP) compared to conventional digestion

Health safety for soil return

Production of (USEPA Class A) hygienised sludge

Ease of operation

- Fully automated process

Among our references

Dunkerque, France
Capacity: 300,000 PE

Dijon, France
Capacity: 400,000 PE

Juan Diaz, Panama
Capacity: 2,000,000 PE

SUEZ

Engineering & Construction

www.suez.com

eng.construction.water.solutions.fr@suez.com