

Cone-bottom Steel Digester

Overview

- Cone-bottom shaped sludge digester made with steel has an impeller stirrer inside.
- Ratio of inner diameter to side water depth is approx. 1:1

Scope of application

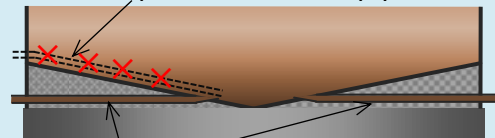
- Medium temperature digestion (35~40°C)
- Applicable to sewage sludge, night soil, septic tank sludge, rural community sewage sludge, off-field biomass including food waste suitable for fermentation. Blend ratio of thickened primary sludge to excess sludge is no object
- Capacity is less than 9,000m³ per one digester

Cone-bottom structure

- Collect all settlings
- Best inclination angle of cone prevents sedimentation
- Forcing sludge out from the bottom by horizontal withdraw

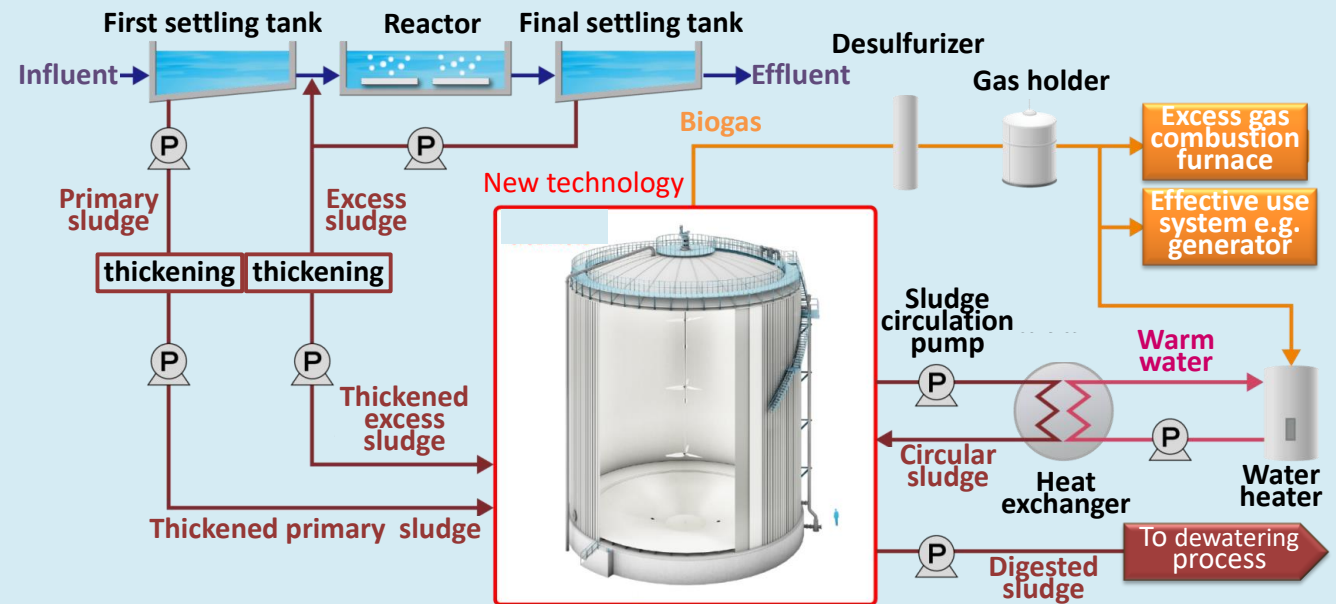
✂ The digester has no upward withdraw pipe that a common digester has .

Common upward withdraw pipe



Horizontal withdraw pipe

System flowchart of related facilities and scope of new technology



Steel digester

Combination with impeller stirrer of conventional technology

Cone-bottom Steel Digester

Benefit & Features

Long service life...35 years for tank

- Corrosion prevention* each for liquid phase and gas phase
✕ Follow JS corrosion prevention manual. Regular inspection and maintenance or repair in every 10 years are required
- Easy upgrade including increase nozzles because of steel

Reducing construction period and cost

- Enable multitasking in factory and construction site because digester is shop fabricated
- No underground structure including basement or pipe gallery is required

Less maintenance...prevent sludge accumulation

- Cone-bottom structure and horizontal withdraw of sludge from bottom enable efficient discharge of sediment

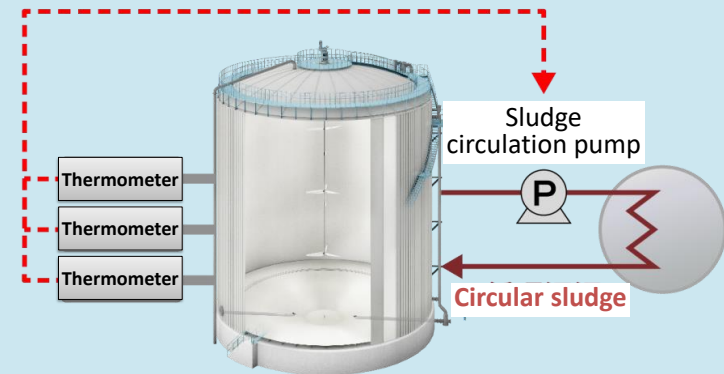
Energy saving

- Adopt low power impeller stirrer
- Complete automatic control system enables an intermittent operation of circular sludge pumps.



Impeller stirrer

Low temperature → Pump is on
High temperature → Pump is off



Steel digester