

A PATENTED SYSTEM FOR THE THERMAL DISINTEGRATION OF ORGANIC SLUDGE

No steam required

Designed for small to mid-size plants

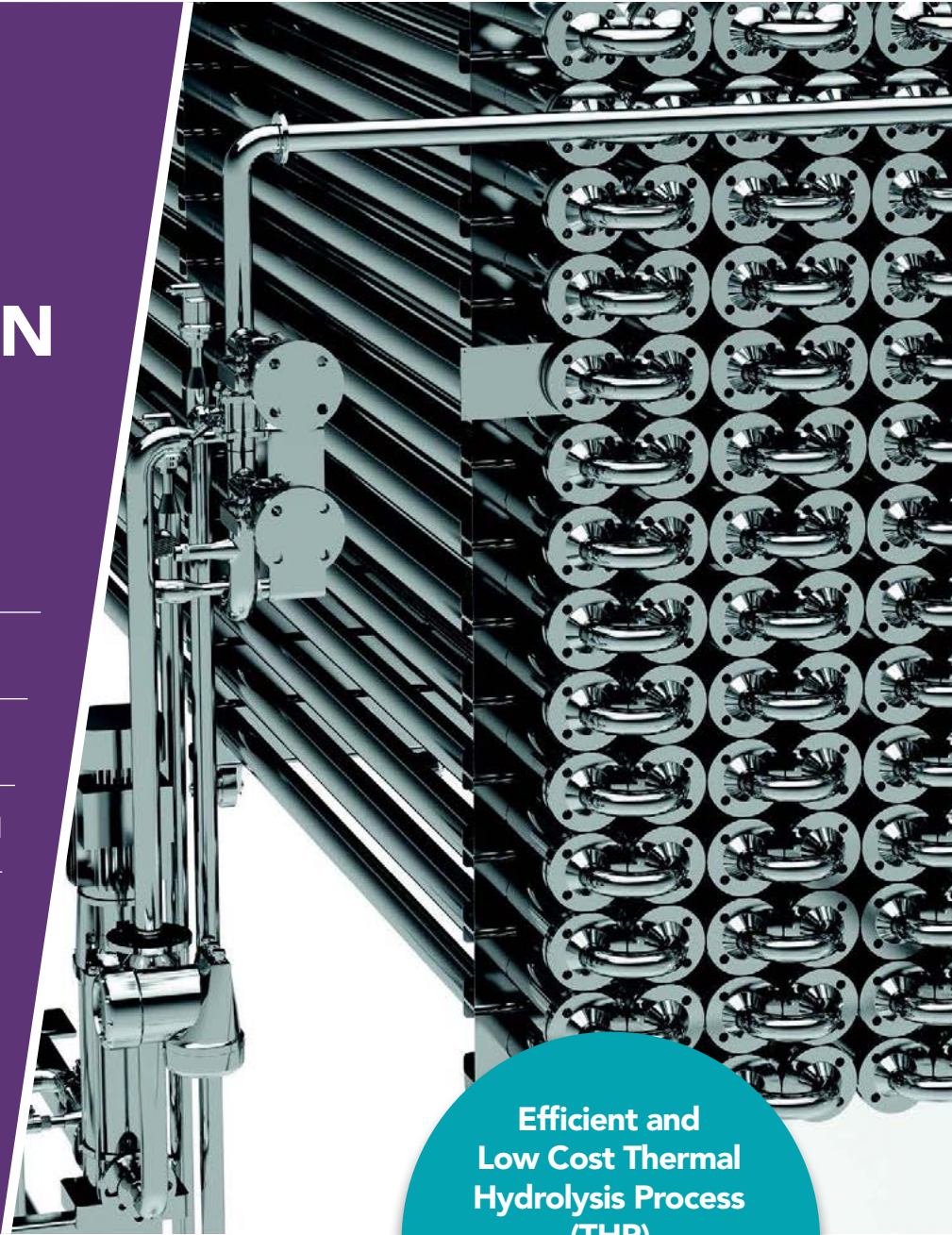
Increased gas production

Reduced amount of sludge to be disposed

Reduce digestion time

Reduce polymer consumption used in
the dewatering process

Simple and easy-to-operate

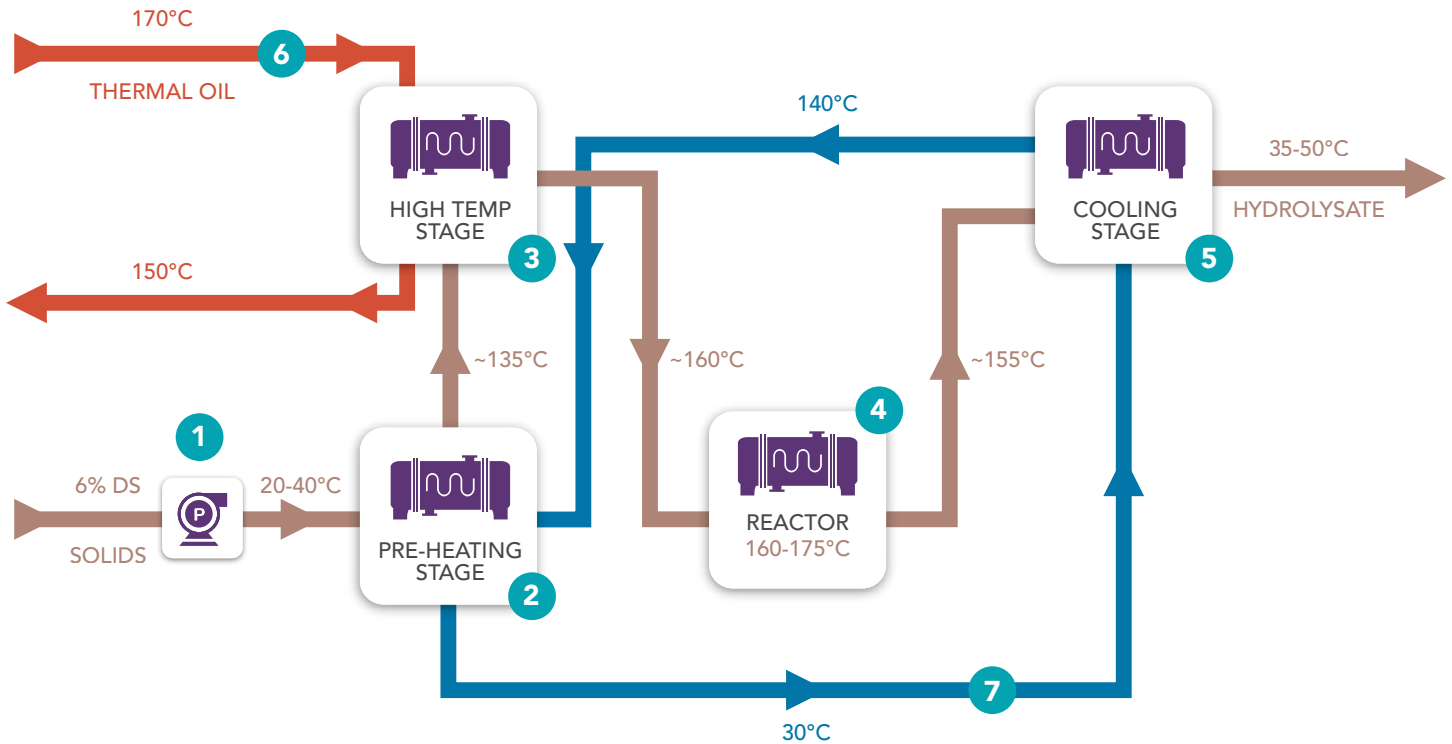


**Efficient and
Low Cost Thermal
Hydrolysis Process
(THP)**

**Give us a call at
1-855-GO-OVIVO
to learn more.**

LysoTherm™ Process

OPERATING PRINCIPLE



Sludge is continuously fed via the sludge pump, ① into a multistage heat exchanger system. Pre-heating takes place in the first stage of the heat exchanger system, ② then the sludge passes through the high temperature stage heat exchanger in order to raise the temperature up to the reaction temperature by way of thermal oil. ③ The proper disintegration process takes place at the pre-determined reaction temperature in the disintegration reactor ④ where the sludge usually remains for 30 - 60 minutes. After the disintegration is completed, the sludge is cooled down in the cooling stage ⑤ to the temperature required for entering the digestion tower; alternatively, it can be mixed with cold primary sludge in order to be cooled down to digestion temperature.

The system is heated via two heating circuits:

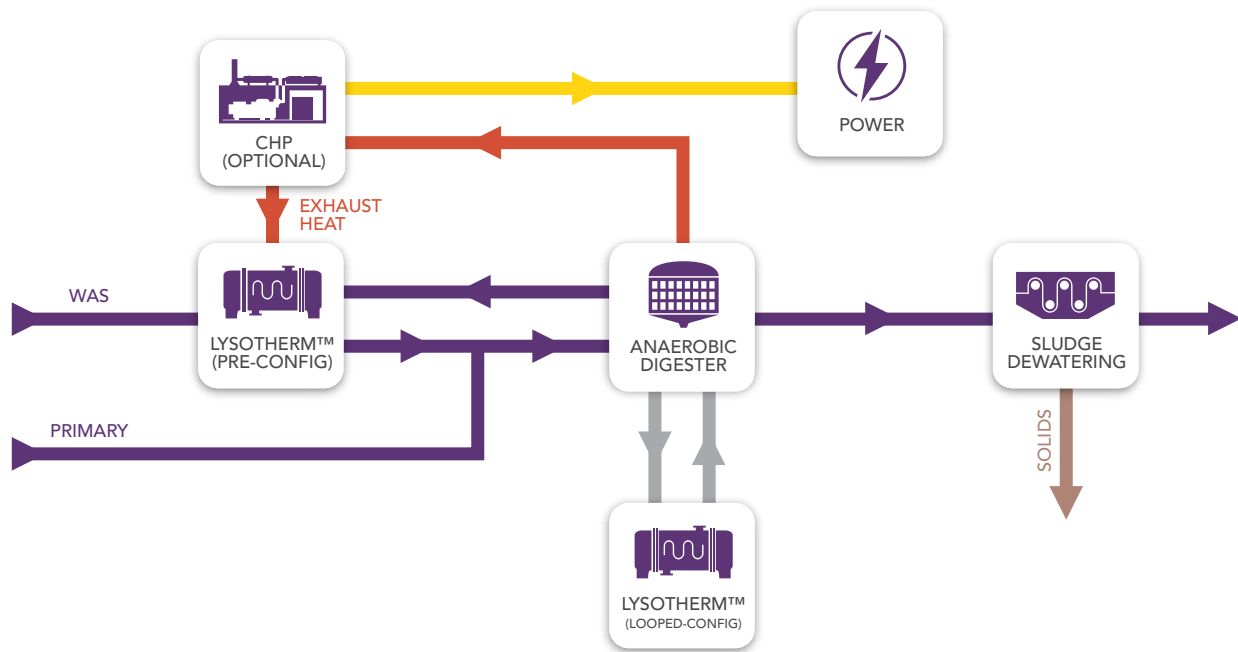
The thermal oil circuit ⑥ to create the necessary process heat in the pipe reactor. The process heat is typically recovered from the exhaust gases of the combined heat and power or cogeneration (CHP).

The regenerative circuit ⑦ using water as a heat transfer medium. This circuit makes the heat recovered from the disintegrated sludge in the cooling stage available for pre-heating.

APPLICATION

The LysoTherm™ process is flexible and versatile. In addition to the thermal disintegration of excess sludge

(pre-configuration), it can also be used for the conditioning of digested sludge (looped configuration).



BENEFITS OF THE LYSOTHERM™ PROCESS

- No steam required
- Designed for small to mid-sized plants
- Increased gas production
- Reduced amount of sludge
- Improvement in dewatering
- User and maintenance friendly - Uses a fully automated cleaning system
- Easy to install - The system's plug & play design makes it easy to install
- Modular plant design - Small footprint Space-saving system structure.



CASES WHERE LYSOTHERM™ PROCESS SHOULD BE CONSIDERED

- Reduce total solids and improve volatile solids reduction (VSR)
- Increase digester loading
- Decrease digester volume for a new tank to save on construction costs
- Increase gas production for energy generation
- Inhibit foaming issues
- Improve dewatered sludge solid percent
- Improve sludge rheology for easier mixing and pumping



THE OVIVO DIFFERENCE

200+ YEARS OF HERITAGE • 100% FOCUSED ON WATER

OUR EXPERTISE

Anaerobic Digestion is highly dependent upon effective sludge mixing. Ovivo® sludge mixers are designed to provide powerful mixing, without accumulating stringy or fibrous material. Highly efficient and featuring low maintenance requirements, they can be used for existing or new digesters. Their configuration is adapted to best suit the specific tank design and application.

ANCILLARY EQUIPMENT

Ovivo can supply all plant required equipment for a complete Sludge Treatment / Anaerobic Digestion plant, including but not limited to:

- Gas Storage (Ultrastore™ Gasholder)
- Digestion Mixing (LM™ Mixer or Eimix® Mixer)
- Digester Covers
- Ammonia Removal (DigestivorePAD™ or AnammoPAQ™)
- Struvite Removal (PhosPAQ™ or EloPhos™)



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