



Package THP[®]

The **Lystek Package THP** solution is Lystek's smallest commercial system built to date.

The unit extends the proven advantages of the in-plant **Lystek THP[®]** solution by offering an award-winning process through a compact, cost effective package that is capable of rapid implementation.

The system operates entirely within two vertically stacked 50' containers and requires minimal external utilities. Lystek's Package THP includes our process Module, dewatering capabilities, and all ancillary systems. This package offers operational flexibility with optimized resource recovery, providing generators sustainable solutions for biosolids and organics management.



One System. Multiple Benefits:

Lystek's Package THP offers the following operational advantages and flexibilities:

1. Provides a permanent cost-effective solution for smaller scale facilities
2. Can be deployed at larger facilities to offer advanced treatment for a portion of solid residuals

Additional advantages of the solution include:

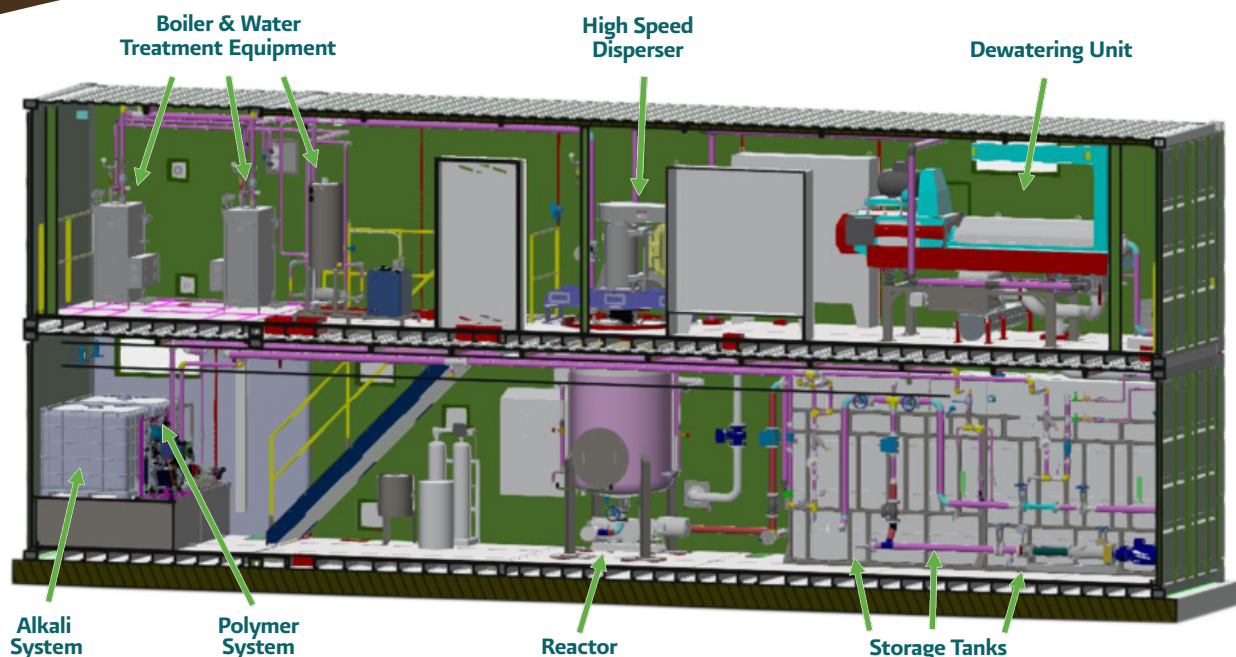
- Creates a marketable, high-solids liquid Class A quality fertilizer
- Comprehensive product management services
- Augment to existing plants – does not disrupt process flow
- Integrates easily with multiple resource recovery technologies

About the Lystek Technology

Lystek THP, a low temperature Thermal-Chemical Hydrolysis Process, is an award-winning, proven biosolids and organics management solution.

Lystek THP transforms raw or digested residuals into a Class A quality biosolids fertilizer and multi-use hydrolyzed product. This technology provides operational flexibility with multiple product uses, including **LysteGro[®]** Class A biosolids fertilizer, **LysteMize[®]** digestion enhancement process, and **LysteCarb[®]** alternative carbon source.

Operating inputs are low pressure steam, high speed shearing, and alkali, all applied simultaneously in an enclosed Reactor.



Key Operating Parametersⁱ

Electrical Consumption	60 kw-h per dry ton
Electrical Compatibility	600 V or 460 V
Heat Requirement ⁱⁱ	1,100,000 Btu per dry ton
50% Liquid Alkali Solution ⁱⁱⁱ	160 - 200 lb per dry ton
Operating Temperature	167°F / 75°C
Solids Content – Processed Product	13 - 16%
Viscosity – Processed Product	5,000 – 10,000 cP

Lystek THP Mobile Sizing

Processing Rate	0.3 dry tons per hour
Footprint ^{iv} (ft ²)	800 ft ² for container
Dimensions	50'L x 8'w x 19'h
Clearance Requirements	10' minimum from one long side, 5' from other, short ends must be kept accessible

Valuable End Products and Processes

LysteGro® Biosolids Fertilizer	Pathogen free, nutrient-rich, Class A quality fertilizer
LysteMize® Digestion Enhancement	Increase biogas production by and volatile solids reduction
LysteCarb® Alternative Carbon Source	Eliminate use of costly chemicals (i.e. methanol, glycerol) used for BNR

Key Features

- Ease of on-site installation and operation
- Operational / product flexibility
- Automated operation, SCADA controlled, remote access available
- Minimal inputs and external connections
 - potable water, electricity, recycled water

ⁱ Operating parameters are estimates only and will vary according to site conditions, feedstock characteristics, and intended use of hydrolyzed product.

ⁱⁱ Dependent upon biosolids feed temperature into the Reactor. Heat requirements estimated based upon an average feed temperature of 60°F.

ⁱⁱⁱ Typically potassium hydroxide (KOH).

^{iv} Includes Packaged THP unit only. End product storage requirements will vary by site conditions.

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