



Mobile THP®

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

The mobile 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 Mobile THP offers operational flexibility with options for LysteGro® production, LysteMize® digester enhancement, LysteCarb® BNR enhancement, and dewatering capabilities - all included within the unit.



One System. Multiple Benefits:

Lystek THP offers the following operational advantages and flexibilities:

1. Provides a permanent solution for smaller scale facilities
2. Can be leased to address challenges at larger scale facilities requiring time-sensitive solutions.

Additional advantages of the solution include:

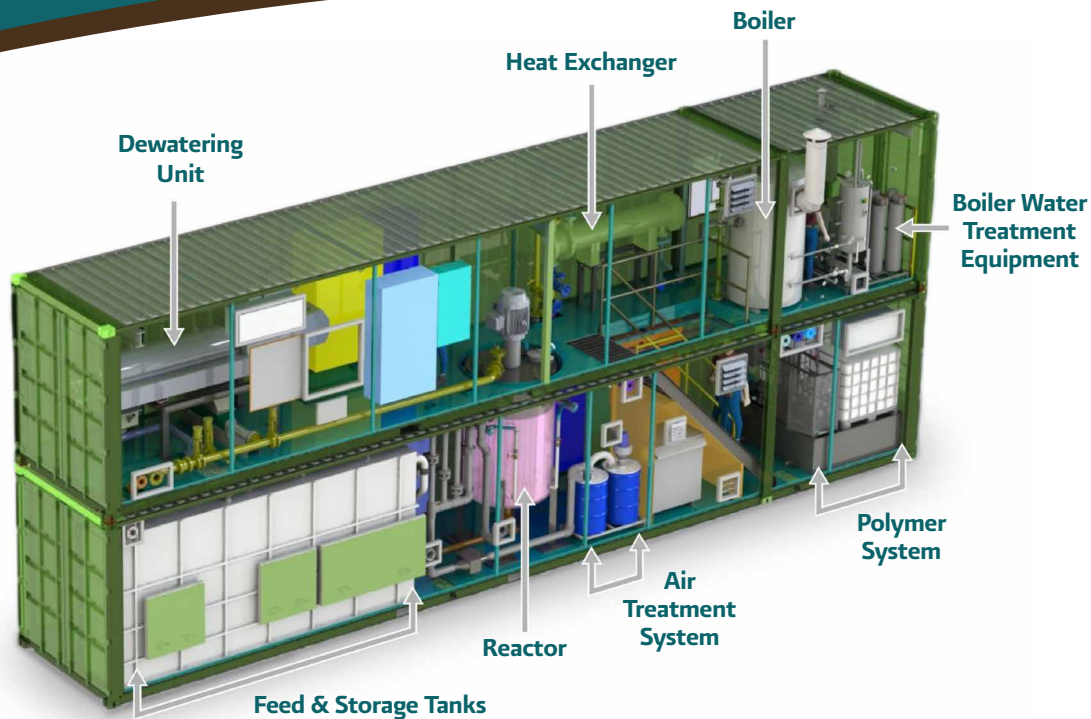
- Creates a marketable, high-solids liquid Class A fertilizer
- Comprehensive product management services
- Augment to existing plants – does not disrupt process flow
- Integrates easily with multiple resource recovery technologies

About the Lystek Technology

The Lystek low temperature Thermal Hydrolysis Process (Lystek THP) is an innovative, award-winning, proven biosolids and organics management solution.

Lystek THP transforms raw or digested organic feedstocks into a Class A quality biosolids fertilizer and multi-use hydrolyzed product. This technology offers one system with multiple benefits. This system enables wastewater treatment plants to enhance biogas production while reducing residual volumes, costs, odors, and greenhouse gases (GHGs).

Operating inputs are low pressure steam, high speed shearing, and alkali, all applied simultaneously in an enclosed Reactor. The system is fully automated and simple to operate and maintain.



Key Operating Parametersⁱ

Electrical Consumption	60 kw-h per dry ton
Electrical Compatibility	600 V or 460 V
Heat Requirementsⁱⁱ	1,100,000 Btu per dry ton
45% Liquid Alkali Solutionⁱⁱⁱ	190 - 230 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 (dry tons per hour)	0.3
Footprint^{iv} (ft²)	400 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

Product Value/Options

LysteGro® Biofertilizer	Meets/exceeds Class A biosolids criteria
LysteMize® Digester Optimization	Increase biogas production by up to 40% and volatile solids reduction by up to 25%
LysteCarb® Alternative Carbon Source	Eliminate use of costly chemicals (i.e. methanol, glycerol)

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, alkali, 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 recommend potassium hydroxide (KOH).

^{iv} Includes Mobile THP unit only. Product storage requirements will vary by site conditions.

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