





Thermo-System® Active Solar Sludge Dryer

- Environmentally-friendly, green technology
- Dries liquid & dewatered sludge
- Dewaters and dries sludge
- Class A end product maximizes sludge disposal options
- Proven: over 150 installations worldwide

World's Market Leader in Solar Drying

With over 150 installations worldwide, the THERMO-SYSTEM[®] Active Solar Sludge Dryer has proven to be a very reliable and energy efficient technology for drying municipal sludge.

Parkson's THERMO-SYSTEM[®] uses the sun as its main power source, where 95% of the energy required for drying is provided by solar energy. The result is significantly reduced operating costs compared to competing technologies like conventional gas or oil fired dryers.

THERMO-SYSTEM[®] technology has been used in water and wastewater treatment plants ranging in size from 0.2 MGD to the world's largest solar drying installation of 40 MGD.

Features

- Designed to accept liquid or de-watered sludge
- Fully automated control
- Minimal maintenance required (alternatives welcome)
- Easily loaded with trucks, conveyors or pumps
- Can efficiently utilize waste heat to reduce the required drying area

Benefits

- Minimizes energy costs by using only 30-40 kWh per ton of water evaporated
- Reduces sludge volume by up to 97%
- Increases product dryness up to 90% dry solids.
- Produces Class A biosolids
- Requires very little operator attention



Dry, homogeneous Class A biosolids





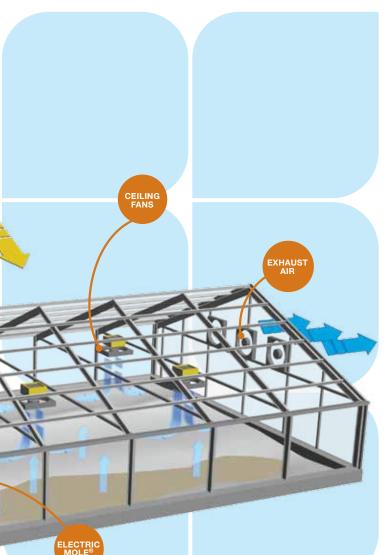
OPTIONAL

HEAT EXCHANGER

AIR INLET FLAP



SOLAR RADIATION

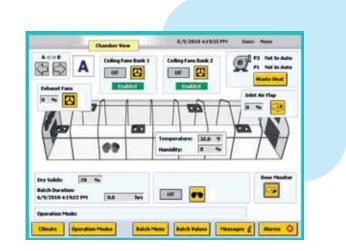


Smart Technology

The system's sustainable, CO_2 neutral drying process is fully automated, therefore minimal operator attention and control is needed. The system is engineered to incorporate very few moving parts to maximize reliability and minimize maintenance costs and downtime.

The award winning Electric Mole[®] automatically turns, distributes and aerates the sludge to dramatically increase drying performance.

A PLC carries a complex drying program that controls and monitors the entire drying process. The operation of all devices is completely automated.



10 MGD Energy Cost Comparison Gas versus Solar

		10 MGD Comparison	
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Basic Data + Assumptions	Units	Gas Fired	Solar
Total Amount of Sludge to be Dried	tons/yr	21,120	
Initial Dry Solids	% DS	17%	
Final Dry Solids (Target)	% DS	75%	
Water to be Evaporated	tons/yr	16,320	
Thermal Energy Consumption	BTU/t H ₂ 0 Evap.	3,100,000	0
	BTU/Yr	50,592,000,000	0
Thermal Energy Cost	\$/million BTU	\$ 10.00	\$ 10.00
	\$/yr	505,920	0
El. Energy Consumption	kWh/t H ₂ O evap	90	30
	kWh/yr	1,468,800	489,600
El. Energy Cost	\$/kWh	0.1	0.1
	\$/yr	146,880	48,960
Annual Energy Costs	\$/yr	652,800	48,960
Annual Energy Savings Using Solar)rving: \$600.000		

Annual Energy Savings Using Solar Drying: \$600,000

Works in All Climates

Ranging from the freezing temperatures in the Swiss Alps to the hot and humid climate of Florida, Parkson's THERMO-SYSTEM[®] is your best sludge dryer option for all locations.



US Installation List

- Oregon
- Arkansas
- California
- Mississippi
- Hawaii
- Indiana
- Maryland
- Florida
- Delaware
- South Carolina
- Vermont*

*2012 start-up



High-quality End Product

The end product is an odorless, biologically stable and virtually pathogen free, maximizing your biosolids disposal options.

Parks n Treating Water Right



Fort Lauderdale Chicago Montreal Dubai Mumbai

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