



Thermo-System[®]

Active Solar Sludge Dryer

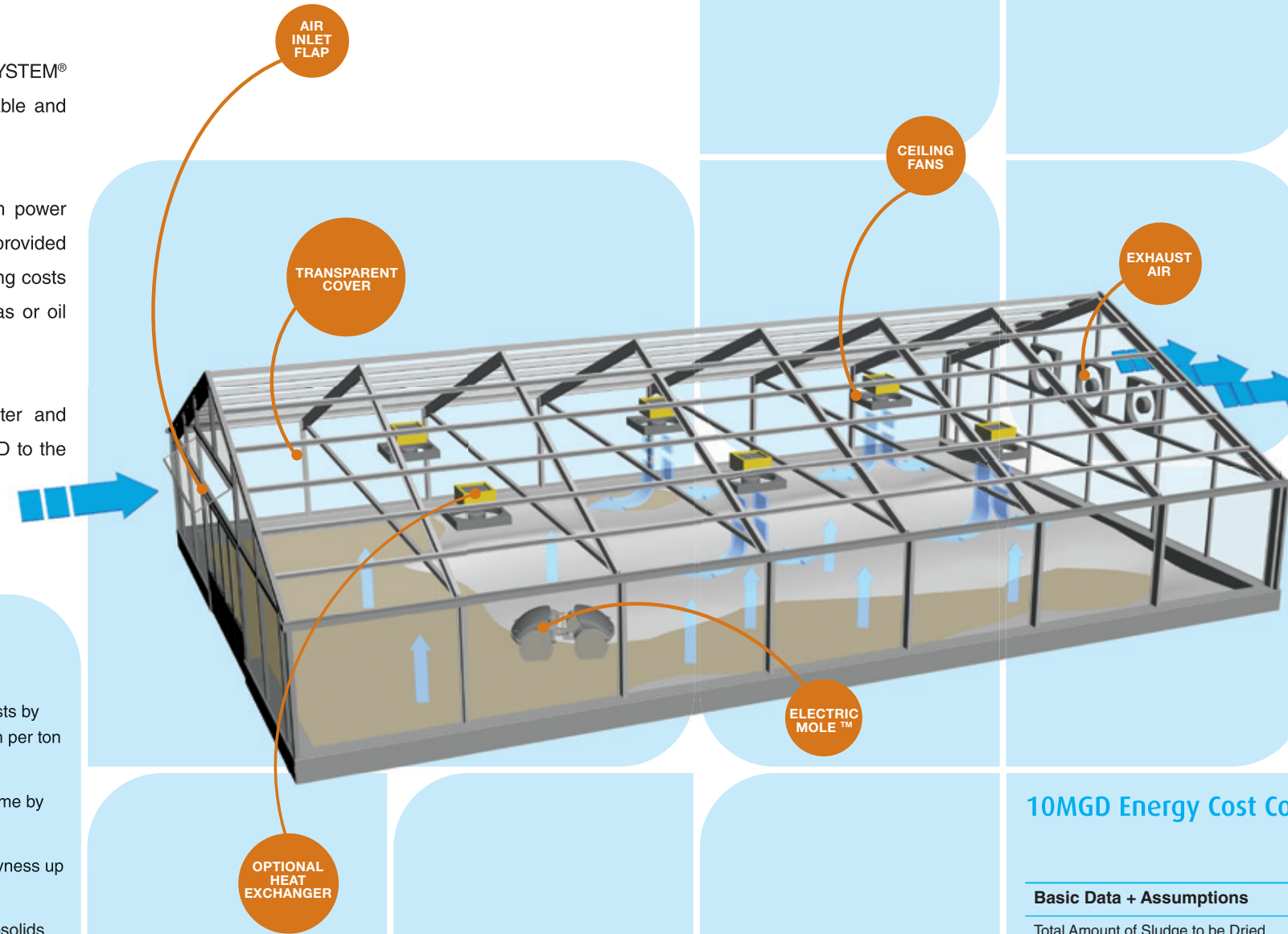
- Environmentally-friendly, green technology
- Dries liquid & dewatered sludge
- Dewateres and dries sludge
- **Class A** end product maximizes sludge disposal options
- Proven: over 250 installations worldwide

World's Market Leader in Solar Drying

With over 250 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 80 MGD.

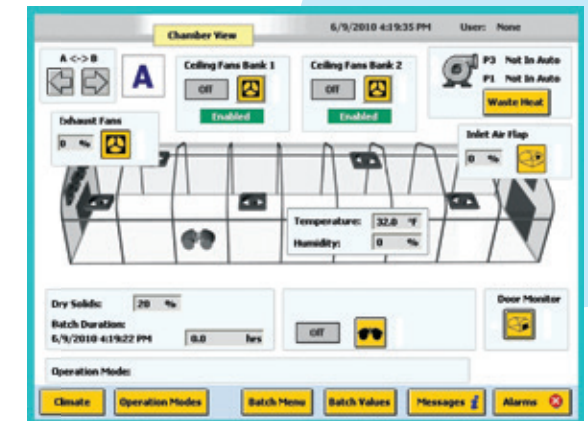


Smart Technology

The system's sustainable, CO₂ 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.



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



10MGD Energy Cost Comparison Gas versus Solar

Basic Data + Assumptions	Units	10 MGD Comparison	
		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 O Evap.	3,100,000	0
	BTU/Yr	50,592,000,000	0
Thermal Energy Cost	\$/million BTU	\$ 5.00	\$ 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	326,400	48,960

Annual Energy Savings Using Solar Drying: \$280,000

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
- Colorado



High-quality End Product

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



Fort Lauderdale
Chicago
Montreal
Kansas City
Dubai

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