



**BIO-RESPONSE
SOLUTIONS**

Large Capacity Pet Systems

For Large Animals and/or High Volumes—2500 and 4000 lb Capacities



What is alkaline hydrolysis?

Alkaline hydrolysis is a process by which animal tissues are broken down into their basic building blocks. This naturally-occurring process is accelerated in the Bio-Response Alkaline Hydrolysis System, producing a sterile solution of amino acids, small peptides, sugars, nutrients, and soap, along with the mineral ash of the bones and teeth (calcium phosphate).

Benefits of the process?

- Low energy consumption
- No emissions of harmful greenhouse gasses
- 1/10 the carbon footprint of cremation
- Destruction of chemicals (including euthanasia chemicals)
- Sterilization of pathogens
- Operation is cleaner and less costly than cremation/incineration
- Creation of a useful byproduct as natural fertilizer

Why the Bio-Response system?

- 17 years of experience with alkaline hydrolysis
- Large capacity for processing horses and/or large volumes of pet mortalities
- Affordable and reliable
- Available in stationary or mobile configurations



Animal Shelters / Veterinary Facilities / Animal Crematory

- Processing of deceased animals as an alternative to costly cremation/incineration
- Process which sterilizes any chemicals/pathogens
- Option of recovering bone ash for pet owners by use of specialized containment bags to ensure the return of the proper remains

Universities / Medical Research Institutions

- Disposal of necropsy or research animals, sterilization of any chemicals and pathogens
- Operation is less costly than incineration
- Equipment for emergency disease response programs

Meat Processing Plant / Abattoir/ Rendering Facility

- Disposal of on-site Specified Risk Materials (SRM): skulls, brains, spinal columns, and other parts that if infected would be high-titre for prion material
- Creation of a usable fertilizer byproduct

Farms / Co-Ops / Agricultural Applications

- Rapid disposal of animal carcasses for on-site processing to eliminate dependence on renderer services, unattractive disposal operations, costly incineration, and time consuming decomposition processes
- Immediate disposal of diseased animal carcasses to prevent further outbreak
- Creation of a usable fertilizer byproduct

Highway Departments / Towns and Municipalities

- Routine disposal of road kill, particularly diseased animals or species prone to carrying disease (for example, rabies and prion diseases)
- As an integral part of a disease prevention and response plan



2500 pound mobile unit with crane option.



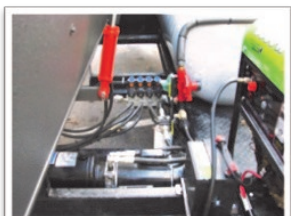
Easily pulled behind a half ton pickup truck.



Tips hydraulically to facilitate loading with various loading equipment.



Easily cleaned when tipped.



Robust construction.



Efficient propane boiler.



Heating coil and removable grates.



Powerful automation.



Simple controls and informative display.



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Large Capacity Pet System Features and Specs

Low Temperature Alkaline Hydrolysis System

Models Available	<ul style="list-style-type: none"> ◆ S2500, S4000: Stationary models for permanent indoor installation ◆ M2500, M4000: Mobile models on a trailer to be pulled by a pickup truck; onboard generator comes standard
Capacity (min-max)	<ul style="list-style-type: none"> ◆ S2500, M2500: 500-2500 pounds (227-1134 kg) ◆ S4000, M4000: 750-4000 pounds (334-1814 kg)
Operating Temperature	◆ 199-205°F (93-96°C); User-Selected
Turnaround Time	<ul style="list-style-type: none"> ◆ 18-20 hours (from start of one cycle to the start of the next) ◆ One cycle per day
Drain Procedure	<ul style="list-style-type: none"> ◆ Standard draining is initiated by the user via the PLC; a cool water coflush is optional ◆ Discharge temperature control is available as an option
pH Control (Optional Feature)	◆ Optional pH reduction system with CO ₂ (carbon dioxide) injection <i>This is only recommended for systems draining to wastewater treatment facilities that require a reduced pH</i>
Heating Source	<ul style="list-style-type: none"> ◆ Stationary units— natural gas, propane, steam, and electric available ◆ Mobile units— onboard propane
Required Utilities	<ul style="list-style-type: none"> ◆ Water Supply: Minimum 40 psi hose connection ◆ Power Supply: <ul style="list-style-type: none"> ● Stationary units—220V Single Phase 50/60Hz (other voltages available) ● Mobile units—Onboard propane generator or local electricity (see above)
Suggested Ancillary Equipment	<ul style="list-style-type: none"> ◆ Weighing device/scale ◆ Optional for pet crematories: <ul style="list-style-type: none"> ● Specialized bags for each individual pet (to isolate the final bone remains) ● Drying rack or rapid drying device for bone remains ● Cremulator (pulverizer/bone processor) to process bone remains into a returnable ash
Dry Weight	<ul style="list-style-type: none"> ◆ S-2500: 5135 lb (2329 kg) ◆ S-4000: 5635 lb (2556 kg) ◆ M-2500: 6635 lb (3010 kg) ◆ M-4000: 7035 lb (3191 kg) ◆ Crane attachment adds 750 lb (340 kg)
Dimensions	<ul style="list-style-type: none"> ◆ Stationary Models: 184”L x 81”W x 81”H (467cm x 206cm x 206cm) <i>(includes tank and all necessary components)</i> ◆ Mobile Models: 232”L x 95”W x 100”H (589cm x 241cm x 254cm) <i>(includes trailer, tank, and all other necessary components)</i>
Additional Options	<ul style="list-style-type: none"> ◆ Custom plaque for your system with your choice of wording and/or graphics ◆ Crane Hoist with attachment for lifting and loading animals ◆ Effluent Receiving/Transfer Trailer (1000 gal/3785L) ◆ Liquid Chemical Feed Kit (pump and chemical metering system for liquid chemical); <i>Note: Dry chemical is added manually and does not require a chemical tank or injection system</i> ◆ Onboard Propane Electric Generator 115/230V (standard on mobile unit) ◆ Field Operation Package (mobile units only) Includes a self-priming pump and pond water siphon hose kit with mobile unit; generator comes standard with mobile units ◆ Highway Department Package (mobile units only) Includes traffic arrow and crane; generator comes standard with mobile units
Notable Benefits	<ul style="list-style-type: none"> ◆ Not a pressurized system— operates at atmospheric pressure ◆ No need for a boiler or other complex components common with pressurized systems ◆ No submerged pump seals ◆ Dual auto-variable agitation (isolated behind grates) facilitates process ◆ Hydraulically-tipping tank tilts to accommodate a variety of loading equipment ◆ Operator does not need to be present during operation ◆ Substantially lower operating cost than incineration/cremation ◆ Low equipment cost, simple operation, and reliability ◆ All parts available locally; all components serviceable locally ◆ Mobile units allow for shared location operation, on-site emergency disease response, in increased containment for disease mitigation ◆ High ground clearance of mobile units allows access to rugged and remote areas ◆ Byproducts are valuable fertilizers