

# Alkaline Hydrolysis

*Introduction to the Water-Based  
Cremation Alternative for Pets*



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200 Colin Court • Danville, IN 46122 • [www.bioresponsefuneral.com](http://www.bioresponsefuneral.com) • [info@bioresponsesolutions.com](mailto:info@bioresponsesolutions.com) • 317-386-3500

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Bio-Response Solutions, Inc.  
200 Colin Court  
Danville, IN 46122

317-386-3500  
[info@bioresponsesolutions.com](mailto:info@bioresponsesolutions.com)

Alkaline hydrolysis is a method of final disposition that reduces the body to its essential elements.

Just as with flame cremation, the family receives an urn with powdered ashes, which are the calcium phosphate minerals of the bone. With alkaline hydrolysis, the family receives approximately 20% more.

In addition to being a more gentle method of disposition for our loved ones, there are many environmental benefits to this option.

There are several names for this process that some may recognize→

*Aquamation*  
*HydroCremation*  
*Water-based cremation*  
*Aqua cremation*  
*Flameless Cremation*  
*Dissolution*  
*Bio-Cremation™*  
*Resomation™*

a safe &  
eco-friendly  
**alternative**  
to flame cremation  
and burial

*By law, most states consider this option to be a form of cremation because the end result is nearly identical: an urn of ashes. Beyond that, the processes couldn't be more different from one another.*

- Flame cremation is an oxidative reaction that vaporizes the body, leaving mineral remains and carbon ash behind. Alkaline hydrolysis is a water-based dissolution process.
- Our process takes conditions that in nature reduce a body to mineral remains (heat, water, and alkalinity), and creates the ideal environment to accelerate this return to basic building blocks. In a clean stainless steel system, a heated solution consisting of 95% water and 5% alkali flows gently across the body for a number of hours. The flow of water is similar to that of a creek or stream. What takes nature months or years, our patented pet systems accomplish in 18 hours.
- The process is quite gentle to the final minerals that remain at the end of the process, which are the calcium phosphate that composes our bones, and this is why families receive 20-30% more ash in the urn. None of the minerals are lost up a stack like with flame cremation. In fact, with alkaline hydrolysis there is no stack, and there are no direct emissions. There is no need to attend the equipment during the process, which enables our customers to go home, or run the other parts of their business.

## *Equivalent to a “PRIVATE” Cremation*

- In the pet cremation community, a private cremation is where the individual pet is placed in the flame cremation chamber alone, and a segregated or partitioned cremation is where multiple pets are placed in the flame cremation chamber together, with some type of division. In a flame incinerator at temperatures exceeding 1600F, the air is moving rapidly and the remains inside of the chamber experience a great deal of movement. Because of the possible degree of transfer of one set of remains to another set of remains in a segregated partition, many families opt for the private flame cremation where only one pet is placed in the chamber at a time.
- Our system allows multiple pets to undergo the process at the same time. Each pet is placed in its own individual compartment, consisting of 4 solid stainless steel walls and very small perforations on the top and bottom to allow the water to flow up through the compartment. The family can rest assured that they are receiving only their pet’s individual ash remains. This gives pet parents what they want, with the least environmental impact possible. In fact, if you compare the environmental impact of 14 individual cremations in a flame crematory to 14 individual processes in our system, the environmental impact is reduced by over 97%.
- Even though multiple pets are placed in our system at one time, the level of “commingling,” or transfer of remains, is equivalent to a private cremation in a flame cremation chamber. The flow of water is so slow that it does not move the remains in the manner a flame cremation does. Additionally, the machine is made of high grade stainless steel, and it is cleaned out thoroughly in between uses. With flame crematories, the floor of the unit is made of brick with cracks and crevices that can only be cleaned as well as possible. This is why even with human cremations, the authorization form discloses that some minor commingling of remains (from prior cremations) is a possibility.

90%

less energy used than  
with flame cremation

0

emissions of harmful  
greenhouse gasses

20%

more ash remains returned  
to the family than with  
flame cremation

>20

years of experience making the best  
alkaline hydrolysis equipment

>95%



of pet owners choose the water  
process when given the choice

>3000

veterinarians are currently  
offering this option  
to their families

gentle & respectful





We make systems to accommodate all sizes of businesses, and all sizes of pets.

Our **PET-400** is our most popular system. It is a good fit for a start-up as well as an existing successful business. We have multiple customers with two of these machines in operation.

We also make larger systems (2500 and 4000lb capacities) for large volume operations and/or large pet cremation (horses, livestock, etc.).





**PET-400**



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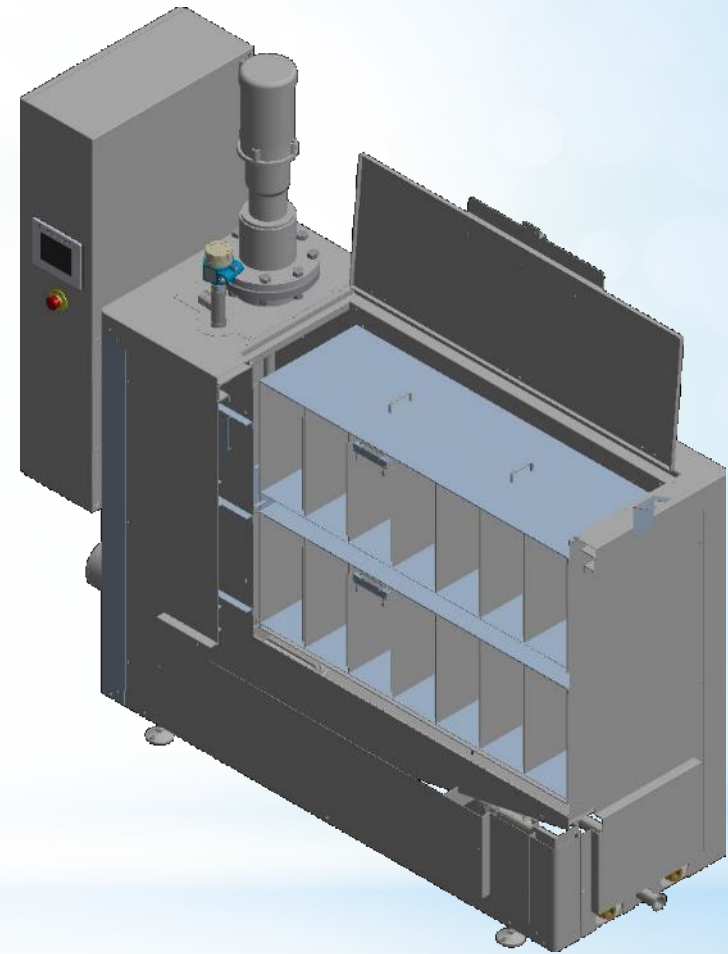
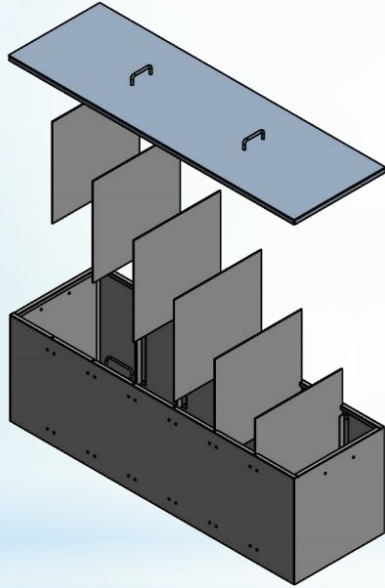
**PET-400**



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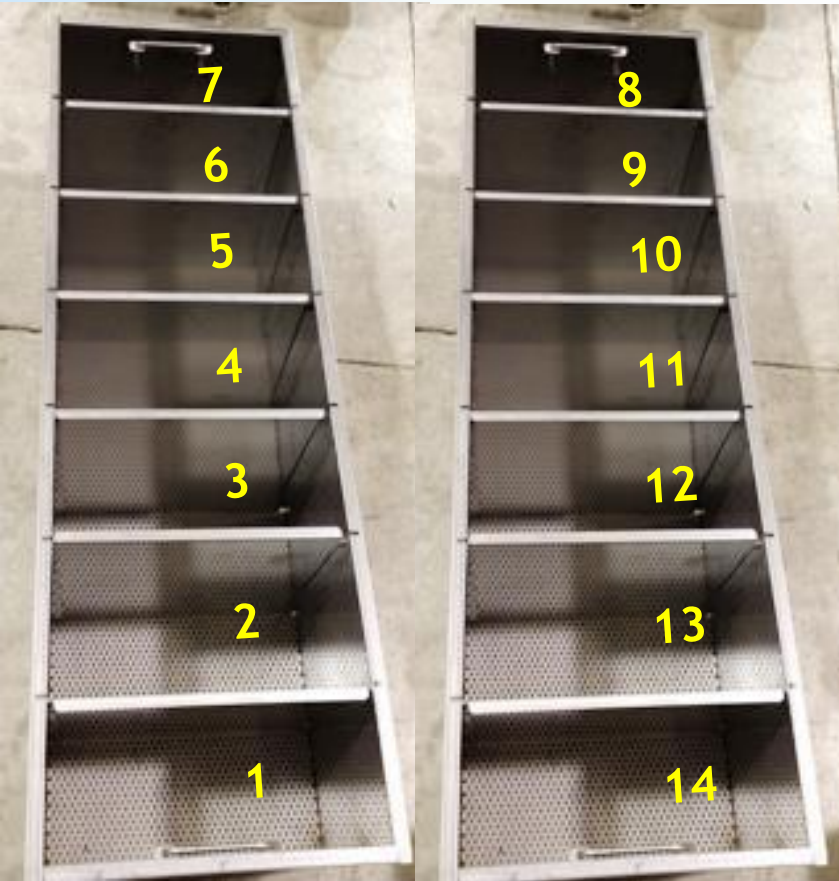
# \*How the compartments work

The solid stainless steel dividers in the PET-400 system slide in and out with ease to accommodate the needs of each cycle.



Above Right: A PET-400 cutaway showing **two** segregated baskets lowered into the system for a full-level cycle. The operator can also perform a half-level cycle, where only **one** basket is placed in the system. When the user starts a cycle, they simply select full or half cycle.

# There are up to 14 individual compartments in a PET-400!



- All four sides of each compartment (or cradle) are solid stainless steel.
- The bottom of the compartments are perforated with very small holes to allow a gentle flow of water through the space.
- The lid that is placed on top also has these small perforations for water flow.
- The dividers are removable, so the operator can size each individual cradle compartment to the pet's size. When the lid is placed on, the dividers can no longer move.
- For size reference: As pictured here, any cat could fit into the compartments shown. Two "spaces" would be used for a medium-sized dog (just slide a divider out to make the space).

We also offer mini-dividers!

We developed mini dividers when we had multiple customers that were growing rapidly, and running out of capacity on their first PET-400 system. It's a fantastic problem to have! These mini compartments (pictured right) are suitable for small animals up to 15 pounds.



Standard  
7 Total Compartments



+ 10 Mini  
12 Total Compartments

Contact us about the price and availability of mini dividers.

**Please contact us for the full  
version of this presentation.**

*The full version of this presentation includes photos of the equipment in use. As a measure of respect, we do our best to ensure that it is only provided to industry professionals as an educational tool.*

*Please call or email, and I would be happy to provide access to the full presentation. Thank you very much for your understanding.*

*Respectfully,*

*Samantha Sieber  
317-386-3500  
sam@bioresponsesolutions.com*



Bio-Response Solutions, Inc.  
200 Colin Court  
Danville, IN 46122 U.S.A.  
Office: 317.386.3500  
info@bioresponsesolutions.com



[www.bioresponsesolutions.com](http://www.bioresponsesolutions.com)  
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