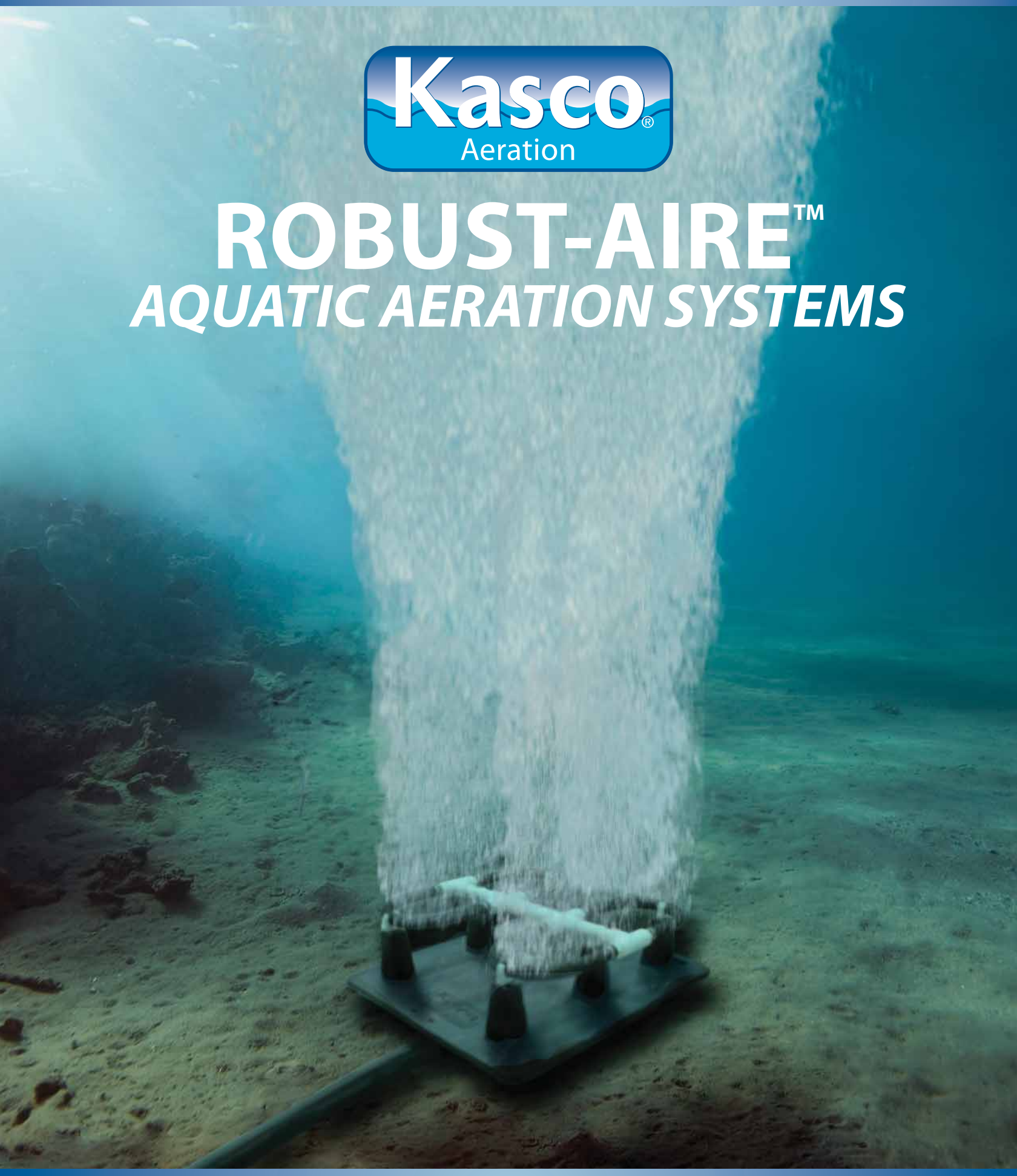
SMARTER BY DESIGN

Kasco® Aeration

ROBUST-AIRE™

AQUATIC AERATION SYSTEMS



AFFORDABLE ❖ VERSATILE ❖ ENERGY EFFICIENT ❖ COST EFFECTIVE ❖ COMPLETE ❖ DEPENDABLE

Why use aeration in your pond or lake?

Better Water Quality • Bigger & Healthier Fish • Eliminate or Reduce Odors • Reduce Undesirable Algae

Aeration is key to predictable performance from your pond. Your pond environment receives life-supporting oxygen from the atmosphere at the surface where the air and water contact each other, as well as from the photosynthesis of algae and plants below the water surface. These processes are both affected by weather: available wind energy (wave action) and sunlight. Weather is unpredictable and that can create stagnant water and low oxygen levels. When there is no sunlight, there is no photosynthesis to create oxygen. In stagnant water, there is no physical energy to help the water and air exchange gases and water forms well defined layers of different temperatures. Poor environmental conditions in the pond for fish and other organisms are the result.

Aeration dramatically improves environmental conditions in your pond and helps keep good water quality predictable. Beneficial bacteria reduce sludge and nutrients, and there are reduced incidences of undesirable algae and odors. Winter ice is not allowed to seal the pond surface and restrict oxygen and gas transfer. Aeration allows your fish to thrive in an optimal environment and fish populations experience improved growth rates and vigor.

Diffused aeration is an effective method of aeration for ponds with depths greater than 8-10'. By using compressed air injected directly into the bottom of pond, a continuous flow of water is moved upward and thousands of gallons of water are mixed with little expended energy. A Robust-Aire™ energy efficient compressor injects air to the bottom of your pond with weighted, SureSink™ air line and into the Robust-Aire™ diffuser assembly. The diffuser breaks up the air into micro bubbles which rise to the surface. The rising of the air bubbles creates current which transfers low-oxygen water to the surface, allows it to contact the atmosphere, and breathe. Temperature layers are disrupted and fish are able to inhabit the entire water column. Oxygen levels increase and harmful gases in the pond water are expelled. There is no disruption of the serenity of your pond setting, just the assurance that it is getting the oxygen that it needs.

Robust-Aire™ Aeration System Advantages:

- ***No electricity in the water.*** There are no motors or electrical components in the water and no restrictions on swimming, boating, or fishing while the unit is operating.
- ***Easy to maintain.*** Most maintenance and inspection is performed from shore at the compressor enclosure.
- ***Energy efficient operation.*** Robust-Aire circulates the most water with the least energy expended. Our compressors are energy efficient and Robust-Aire™ diffusers produce a superior amount of water flow, exceeding other models by 10 to 40 percent.*
- ***Remote installation.*** Electrical access near the pond may not be feasible or you simply may want to locate the system away from the pond setting. Air can be delivered to the system from ¼ mile away.
- ***Manufactured by Kasco Marine.*** Known for manufacturing high-quality, energy-efficient water management equipment for over 40 years, Kasco Marine is a name you can trust.

**Robust-Aire™ diffusers were independently tested with respect to water flow in comparison to 6 designs by 4 other industry leaders. Robust-Aire™ created between 10% and 44% additional water flow, making it the most efficient diffused aeration system on the market.*

Robust-Aire™ Diffusers

Robust-Aire™ diffusers are the most efficient on the market and create more water flow to aerate your pond. Diffusers are designed to provide a fine air bubble with the least amount of pressure. The base is made of durable plastic and an open port allows filling with gravel to settle. It has a raised design that keeps the diffusers performing at an optimal level above the pond bottom. A durable, bolted, strain relief attachment ensures that the weighted tubing will not become detached during installation or maintenance.

RA3 Model

A large base mount cabinet is included as the default method for the system.

- Compressor is mounted in the keyed, lockable cabinet.
- Cooling fans provide 110 CFM ventilation per compressor.
- 120 volt receptacle or a 240 volt junction box.
- Dimensions are 22" x 17" x 19"H.

Post mounted cabinet (PM) is mountable on an exterior wall or wooden post.

- Dimensions 19" x 12" x 12"H.
- 120 volt receptacle or a 240 volt junction box.
- A single cooling fan provides 110 CFM ventilation.
- Compressor is mounted at the factory in the cabinet which is provided with acoustical foam and a keyed cabinet lock.

RA1-PM Model

SureSink™ weighted tubing is available in easy- to-handle 100 foot coils. Each diffuser assembly includes 100 feet of 3/8" tubing for each diffuser. Each coil is boxed and includes our full packet of barbed connectors and adapter fittings, and all-stainless steel tubing clamps. Additional 3/8" or 5/8" SureSink™ and non-weighted tubing are available to customize your system.

Visit **www.kascomarine.com** or contact your dealer for sizing assistance to better evaluate what system is most appropriate for your pond.

Robust-Aire™ System	Surface Acres*	# Diffuser Assemblies	Cabinet options
RA1	1.5	1	Base mount-standard Post Mount (PM) No cabinet (NC)
RA2	3	2	
RA3	4.5	3	
RA4	8	4	Base mount-standard No cabinet (NC)
RA5	10	5	
RA6	11	6	

*RA1 - RA3 pond size is based on a depth of 8 feet and a desired minimum turnover rate of 1 turn of complete volume per 48 hours.
*RA4 - RA6 pond size is based on a depth of 15 feet and a desired minimum turnover rate of 1 turn of complete volume per 48 hours.
Sizing assistance is available.

Robust-Aire™ Gets Results!

Kasco's Robust-Aire™ Case Study: Duck Valley (McGraw Wildlife) Water Chemisty Prior to and Immediately Following Aeration.

Lake size: 12 surface acres • Max. depth: 15 feet • Diffuser depths: 10-13 feet
Number of diffusers: 4 • Diffusers started at 10 AM on 6/2/09

	Before 5/28/09		After 4 hours 6/2/09 2:20 PM		After 1 day 6/3/09	
Depth (ft)	Temp (°F)	D.O. (mg/L)	Temp (°F)	D.O. (mg/L)	Temp (°F)	D.O. (mg/L)
0.3	65	11.37	67	11.5	63	7.7
3	65	10.85	65	9.35	63	7.62
6.5	63	5.38	64	9.86	63	7.5
10	56	0.33	57	0.32	63	7.57
12	50	0.11	51	0.1	63	7.48

Summary:
It took less than a day to completely destratify the pond both thermally and chemically with 4 diffusers powered by two 1/3 hp compressors.

Other Products Available From Kasco

Kasco® Aeration

800 Deere Rd • Prescott, WI 54021
Phone 715.262.4488 • Fax 715.262.4487
sales@kascomarine.com
www.KascoMarine.com
www.GotAlgae.com

YOUR KASCO DISTRIBUTOR IS: