

Aquatic Biotechnologies, Inc.

Electric Power Aeration Systems



The air diffuser provides great aeration without blocking views!

Following are several different diffused aeration kits. Diffused aeration systems are the best way to aerate, de-stratify and create circulation on ponds over 6' deep. Each system has three basic parts.

1. an air compressor
2. an air hose
3. an air diffuser

The air compressor sits on shore and pumps air out through the hose to the air diffuser located on the bottom of the pond. The result is thousands of tiny bubbles rushing out of the diffuser to the pond surface, creating circulation and providing aeration.

There are several advantages to using diffused aeration kits instead of surface aerator:

1. Electric motor is on shore, not in the water,
2. Air diffusers lay on the bottom, ensuring aeration of entire pond from bottom to top, regardless of depth size,
3. With proper sizing, tubing lengths up to 2000' can be achieved for ponds without electricity nearby.

All motors are designed for continuous duty operation and are oil-less for low maintenance. Periodic cleaning of air filter and replacement of diaphragm and gasket every few years is all that is necessary. Air stones can be cleaned (if necessary) in muriatic acid to restore like-new performance. We can build much larger systems or alter these kits to fit your specific needs. Please call for assistance. Kits include everything needed for installation and operation except for tubing weights. Tubing is buoyant and requires a 5# weight every 6-8' sink, or use optional self-weighted tubing.

Fountains vs. Diffused Aeration - Which is better?

Fountains are a popular choice when a decorative aerator is desired. Fountains splash the surface of the pond and help control surface algae and duckweed, but do not aerate down to the bottom of deep ponds.

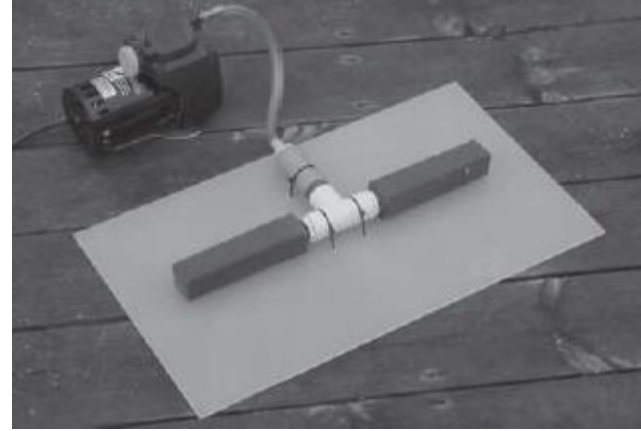
Diffused aeration is the best way to aerate deep ponds. Because the air diffuser lies on the bottom you achieve total pond aeration from top to bottom regardless of depth.

Air Compressor Kits

1/20 HP DIAPHRAGM AIR COMPRESSOR KIT for small ponds. This small, continuous duty pump is ideal for aeration of smaller, shallower ponds. 1/20 HP compressor will operate to a depth of 12'. Compressor draws 1 amp electricity and pumps .7 CFM of air.

Kit Includes:

- Air compressor
- 50' tubing
- Two stone air diffusers with check valve and underlay (to prevent stones from settling into mud)
- Fittings and clamps

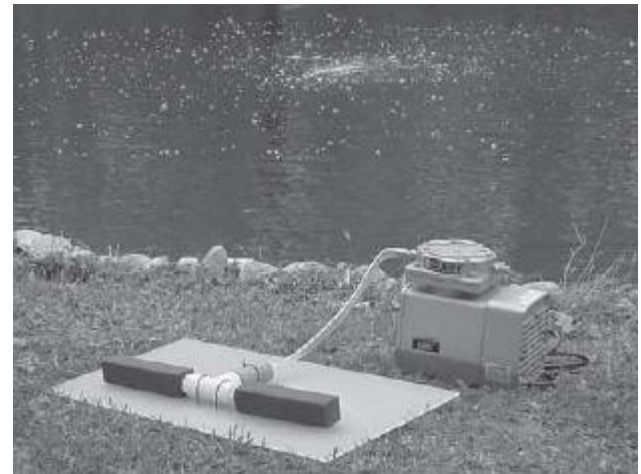


Part #	Description	Ship Weight (lbs.)	Price
PA10	1/20 hp. kit w/vinyl tubing	15	\$340.00
PA10W	1/20 hp. kit w/weighted tubing	22	\$405.00
DC22	Replacement compressor	7	\$242.50
RK22	Repair kit for air compressor	1	\$33.75

1/8 HP DIAPHRAGM AIR COMPRESSOR KIT for ponds up to 1/4 acre. Will operate in water up to 30' deep. Motor draws 3.4 amps and pumps .8 CFM of air.

Kit Includes:

- Air compressor
- 50' tubing
- Two stone air diffusers with check valve and underlay (to prevent stones from settling into mud)
- Fittings and clamps



Part #	Description	Ship Weight (lbs.)	Price
PA12	1/8 HP kit w/vinyl tubing	25	\$454.00
PA12W	1/8 HP kit w/weighted tubing	32	\$510.00
DC12	Replacement compressor	16	\$321.00
DC12RK	1/8, 1/3 HP repair kit	1	\$36.00
RPC71RK	1/3 HP rocking piston kit	1	\$88.00

Our best selling aerator!

1/4 HP ROCKING PISTON AIR COMPRESSOR KIT for ponds up to 1 acre. Will operate in water up to 35' deep. Motor draws 3.1 amps and pumps 1.5 CFM of air.



Kit Includes:

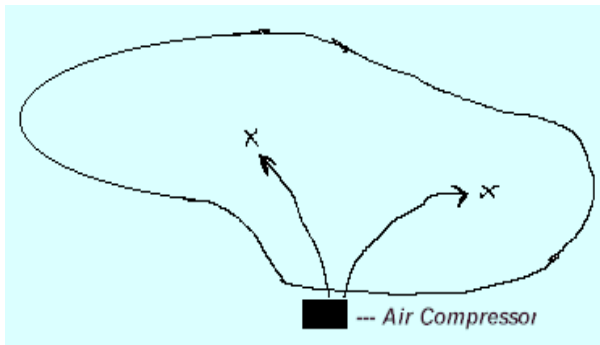
- Air compressor
- 100' tubing
- Air diffuser with check valve and underlay
- Fittings and clamps

Part #	Description	Ship Weight (lbs.)	Price
PA33	1/4 HP kit w/vinyl tubing	31	\$577.00
PA33W	1/4 HP kit w/weighted tubing	41	\$777.00
RP741	Replacement compressor	15	\$367.00
RP74RK	Repair kit for air compressor	1	\$39.00

NEW MOTOR Our best selling air system now has a new motor that provides the same air flow but draws less electricity, has a longer life and runs at 1750 RPM instead of 3500 RPM. This lower RPM creates less heat resulting in longer bearing and motor life.

It is crucial to the life of any of our air compressors that they be protected from the weather as well as dust and dirt. These factors will significantly reduce the operating life of the compressor. We offer several [Covers](#) for outdoor use, or compressors can be housed in barns, garages or other structures.

IMPROVED DIFFUSER All of our aeration kits 1/4 HP and larger have a new and improved air diffuser. These new diffusers feature a rubber membrane that self cleans and lasts much longer than our previous silica sand air stones. These new air diffusers will need a 5 lb. weight (not supplied) attached, to hold them in place.



Long, narrow ponds may require multiple diffusers to properly aerate the entire pond.

Square, circular and oval ponds



* The deeper an air diffuser is located, the more boiling action it will create and a larger area will be aerated.

* Because ponds come in all sizes and shapes, one of our standard kits shown here may not work for your application. Please call with your needs and we can design a system tailored to your pond.

ROTARY VANE KITS

These rotary vane air compressor kits pump considerably more air than the pumps above. Rotary vane pumps do not operate as deep as the diaphragm and piston pump – maximum operating depth is 18'. A 3/4 HP high pressure model is available which operates to a depth of 27'. The 1/4 HP model pumps 4.2 CFM of air compared to 1.5 CFM with the 1/4 HP piston compressor. This larger volume of air will increase circulation and oxygen levels for faster cleaning of the pond's bottom. The 1/4 HP rotary vane kit is recommended for ponds from 1 to 2 acres, but often is used in ponds less than 1 acre if high fish population, exceptionally poor water conditions or heavy nutrient buildup exists. The 3/4 hp. models are recommended for ponds 2 to 4 acres while the 1 HP is used in ponds larger than 3 acres.

1/4 HP HIGH VOLUME ROTARY VANE COMPRESSOR KIT for ponds 1 acre and or larger or 2 smaller ponds. Produces 4.2 CFM of air, draws 5 amps. Motor available in 115v only.

Kit Includes:

- Air compressor
- Valved outlets (to control air flow between diffusers)
- 200' poly tubing
- Two air diffusers with check valves
- Underlays
- Fittings and clamps



Part #	Description	Amps 115/230V	Ship Wt (lbs.)	Price
PA50	1/4 HP Rotary vane kit	5/2.5	52, 19	\$927.00
PA50W	1/4 HP Rotary kit w/weighted tubing		48, 30, 46, 46	\$1280.00
RV33	Replacement compressor		34	\$530.00
RV33V	Repair kit for air compressor		2	\$65.50

3/4 HP HIGH VOLUME COMPRESSOR KIT produces 9.5 CFM air flow.

Kit Includes:

- Air compressor
- Valved outlets (to control air flow between diffusers)
- 800' poly tubing
- Four air diffusers with check valves
- Underlays
- Fittings and clamps



Part #	Description	Amps 115/230V	Ship Wt (lbs.)	Price
PA75	3/4 HP Rotary vane kit	12/6	60, 33, 30, 30	\$1,525.00
RV75	Replacement compressor		57	\$755.00
RV75V	Repair kit		2	\$84.00

1 HP HIGH VOLUME COMPRESSOR KIT produces 13.5 CFM air flow and draws 7 amps (@ 230v).

Kit Includes:

- Air compressor
- Valved outlets (to control air flow between diffusers)
- 1000' poly tubing
- Five air diffusers with check valves
- Underlays
- Fittings and clamps

Part #	Description	Ship Wt.	Price
PA100	Compressor Kit	60, 50, 25, 22	\$1,835.00
RV100	Replacement compressor	58	\$915.00
RV100V	Repair Kit	2	\$118.00

HIGH PRESSURE POND AERATOR

This rocking piston compressor kit is similar to the 1/4 HP rotary vane kit above (PA50) only this unit is capable of much greater operating depth. While the rotary vane unit above will operate to a depth of 18', this compressor will pump air over 40' deep! Ideal for deep water aeration.

Continuous duty, long lasting motors are designed for the demanding job of deep aeration and when properly protected from the weather, will last for years.



1/3 HP HIGH PRESSURE ROCKING PISTON COMPRESSOR KIT for deep water aeration over 40' deep. Produces 4.3 CFM, draws 5.3 amps.

Kit Includes:

- Compressor
- Valved outlets (to control air flow between diffusers)
- 200' poly tubing
- Two air diffusers with check valves
- Underlays
- Fittings and clamps

Part #	Description	Ship Weight (lbs.)	Price
PA60	HP High Pressure Kit	55	\$971.00
PA60W	Kit with weighted tubing	54, 30, 46, 46	\$1280.00

IF YOU NEED TO AERATE REALLY DEEP WATER THIS IS YOUR SYSTEM!

Capable of pushing air down to 90' deep, this system can handle high pressure caused by deep water or long airline runs. Powered by a 3/4 HP piston compressor, this kit includes three air diffusers, compressor, valved outlet with brass valves, 600' of non-weighted tubing and all fittings and clamps. Compressor is available in 115v or 230v, amp draw is 9.5 at 115v and CFM air output is 5.1.



Part #	Ship Wt.	Price
PA75PC (kit with non-weighted tubing)	48, 30, 30, 30	\$1,440.00



VALVED OUTLET ASSEMBLIES

Use these valved outlets when operating two or more pond diffusers from a single pump. A built-in pressure relief valve protects the pump in case airlines become kinked, plugged or frozen. A union coupling allows for quick and easy removal of the pump. Air flow to each diffuser is controlled by a heavy duty brass ball valve.



Part #	Description	Ship Wt.	Price
VO2	Two valve outlet	4 lbs	\$113.00
VO3	Three valve outlet	5 lbs	\$129.00
VO4	Four valve Outlet	6 lbs	\$145.00
VO5	Five valve outlet	7 lbs	\$163.00



OPTIONAL GAUGE

0-15 PSI gauge monitors operating pressure. Prevent motor damage from excess pressure.

Part #	Price
G15	\$26.75



REPLACEMENT AIR FILTERS FOR PA50-100

A clean air filter is vital for proper performance. Rotary Vane compressors and High Pressure Pond Aerator use these filters. Available as filter elements only or as a complete filter.

Part #	Price
AC432	\$22.50
AC393	\$10.75



AIR FILTER ELEMENT

This air filter is standard on all Gast rocking piston compressors and piston compressors. Can be used in a wide variety of other applications.

Part #	Description	Price
GAF	Complete Filter	\$24.00
GAFE	Replacement Element	\$5.00



INTERNAL AIR FILTERS

This air filter is standard on all Gast rocking piston compressors and piston compressors. Can be used in a wide variety of other applications.

Part #	Description	Price
RVBF	Internal Filter	\$7.50
RVBP	Black Plug	\$4.50

All of our aeration systems are powered by long-lasting GAST air compressors

De-icing with an air system costs up to 80% less to operate than using heaters + De-icers!

ABI

ECONOMY LINEAR AERATION KITS

Our high quality, double diaphragm linear aeration kits are ideal for entry level customers. The compressors are equal in quality to the deluxe units below but are not in a weather proof enclosure. They are designed for indoor use but can be used outdoors if they are shielded from the weather.

Each Kit Comes With:

- Compressor
- 15' of vinyl tubing
- Air Diffuser
- **2 Year Warranty!!**



Part #	Compressor	CFM Air Output	Approx. Pond Size	Electrical Usage	Ship Wt	Price
LA5	GP15	.60	1000-2500 Gallons	15 Watts	7 lbs.	\$205.00
LA10	GP40	1.5	2500-6000 Gallons	34 Watts	11 lbs.	\$259.00

ABI DELUXE LINEAR AERATION KITS



Our piston linear aeration kits are truly the finest systems on the market today! They offer one of the longest warranties of any air pump available because they are the best built air pump you can buy! There are several advantages to these kits:

- Super Quiet – you can barely hear them from only 5' away
- Super Energy Efficient – operates for only pennies per day
- Very Reliable – motors can often run constant for five to eight years
- Oil-less Design – provides clean, dry air with minimal maintenance
- UL listed for outdoor use

Each Kit Includes:

- Compressor
- 15' of self-weighted airline
- Air Diffuser
- **Three Year Warranty!**

The increased oxygen levels and circulation created by aeration has a positive effect on ponds year round, from preventing fish kills in winter to helping reduce algae, sediment and odor in the summertime.

Part #	Comp. Model #	CFM Air Output	Approx. Pond Size	Electrical Usage	Ship Weight	Price
LA5W	ML28	1.0	1000-3000 Gal.	25 watts	17 lbs.	\$368.00
LA10W	ML45	1.6	3000-7500 Gal.	45 watts	20 lbs.	\$436.00
LA15W	ML80	2.8	7500-20,000 Gal.	80 watts	28 lbs.	\$580.00

ORNAMENTAL POND AERATORS/DEICERS

This high-quality, continuous duty aeration system is ideal for both summer time aeration and winter time deicing. Powered by a long lasting, super quiet air compressor that costs only pennies per month to operate! Kit includes compressor, 12' vinyl tubing and air diffuser. Will operate up to 4' deep. 115 volt compressor draws only 7 watts! One year warranty. Compressors on EPA1 aerator needs to be protected from the weather.



Part #	CFM Output	Watts	Stocking Code	Ship Wt.	List Price
EPA1	.1	7	364568	3 lbs.	\$107.50

