

**Kasco VFX fountains add beauty and are efficient aerators too!**

Kasco model	HP	pat-tern	Display Width	Max. Height
1400 JF	¼	5	10 ft	4 ft
1400 //lights	¼	5	10 ft	4 ft
3400 JF	¾	5	20 ft	7 ft
4400 JF	1	5	24 ft	10.5
8400 JF	2	6	46 ft	22' f
3.1 JF	3	6	48"	24"
5.1 JF	5	7	50'	26'

Kasco VFX fountains are almost as efficient as high oxygen transfer aerators but add summer aeration and adds a **WOW** factor to your pond.



Kasco model	HP	cord	Display Width	Max Height
2400 VFX	½	100 ft	15 ft	5 ft
3400 VFX	¾	100 ft	21 ft	6 ft
4400 VFX	1	100 ft	26 ft	8 ft

**POND PRO Supplies**  
Your Pond Problem Solver

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



**Windmills**

In the absence of electricity, windmills can be a valuable tool to aerate your pond, dugout or lake. We recommend adding more efficient diffusers that can increase the O2 dissolved in the water by up to 150%. It takes a little more design skill to ensure you have enough aeration with your windmill system so you don't negatively impact your pond. Some criteria that must be looked at: organic load, the windmill height, how many windmills you have / hectare, and how efficient is your windmill diffusers are. Contact Lorne, our aeration expert at 780 878-3839 for the pros and cons of installing a wind aeration system or check our website at [www.ackeberrytroutfarms.com](http://www.ackeberrytroutfarms.com)



We can customize your windmill with your name..

**Kasco's Robust-Aire Case Study: Duck Valley Water (McGraw Wildlife) Chemistry**

*Prior to and Immediately following aeration* .Lake size- 12 surface acres - Max depth 15 ft .- Diffuser depths: 10-13 ft  
Number of diffusers - 4 Diffusers started at 10 am on 6/2/09

Depth (ft)	Before 5/28/09		After 4 hours 6/2/09 2:20 pm		After 1 day 6/3/09	
	Temp (d F)	D.O (mg/L)	Temp (d F)	D.O (mg/L)	Temp (d 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	59	0.11	51	0.1	63	7.48

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

*We only carry aeration systems that prove to be efficient for their cost. Our clients are #1. We advise which system is the most appropriate for their situation according to our research and experience of supplying over 500 aeration systems in Western Canada.*

For more information and lake management consultation please contact the **POND PRO Lake Management Team at Ackenberry:**  
Call 780 878-3839 Fax: 780 878-3769 or email [ackeberry1@aol.com](mailto:ackeberry1@aol.com)  
Check our Website at [www.ackeberrytroutfarms.com](http://www.ackeberrytroutfarms.com)

**Improving water quality with AERATION!**

Working with nature to preserve our lakes for future generations.



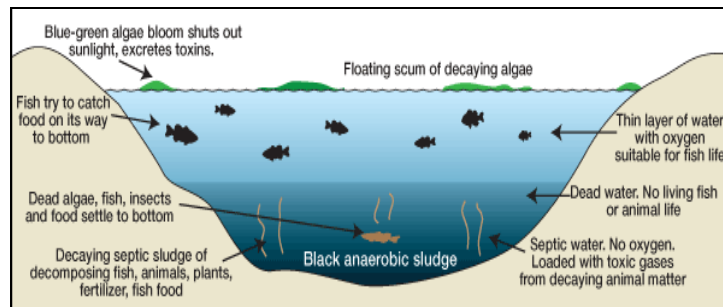
## Does your lake or pond have water quality issues?

- Smelly water
- Excess Algae
- Excess Weeds
- Fish kills
- Dirty looking water
- Ever increasing sludge layer



### What is the cause?

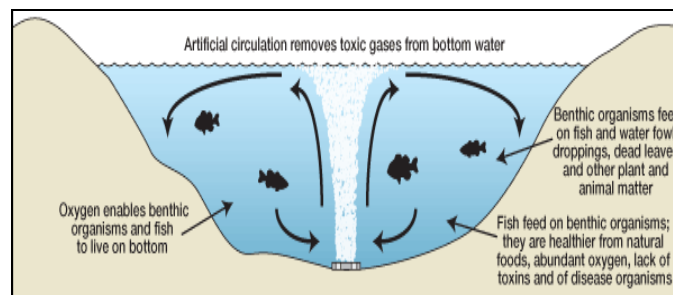
When a lake becomes highly eutrophic (water rich in nutrients) the delicate balance of phytoplankton, zooplankton, plants and fish is changed. Dirty water from soil erosion or fertilizer use around watercourses and lakes speeds up the process of eutrophication. All of the oxygen is consumed faster than it is replenished at the bottom of these lakes during winter and summer. Excess nutrients such as phosphate, iron and others are released from the sediment when oxygen is absent at the lake bottom (internal nutrient loading). Anaerobic bacteria take over and reduce



wastes at a slower rate. These bacteria also release toxins such as hydrogen sulphide (smelly water) and methane's. A thicker layer of sludge is left at the bottom of the lake each year, and blue green algae becomes the dominant species mid-summer, blocking light from other beneficial phytoplankton and plants. The lake is now eutrophic and eventually Mother Nature turns this pond or lake into a swamp with no help from aeration.

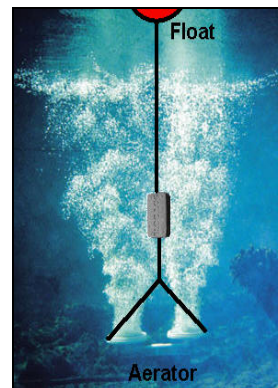
### The Solution

Reduce nutrients from runoff water entering the lake. Design and install an effective Max-air or Kasco Marine aeration system that will keep dissolved oxygen (D.O.) above the sediment layer of the lake greater than 3 parts per million (ppm). This oxygenated water at the sediment layer will allow the breakdown of organic sludge and virtually stop nutrient recycling. Phosphate bonds to ferric II iron and other metals and minerals when bottom oxygen is high.



### A properly designed and sized system will:

- Virtually eliminate fish kills.
- Reduce unwanted algae growth
- Restore oxygen to the lake bottom
- Reduce sedimentation rate. (muck accumulation)
- Not suspend bottom sediments
- Reduce internal nutrient cycling
- Allow fish to thrive in all depths of the Lake
- Improve overall health of the fishery and/or ecosystem



## Which solution is right for me?

Bottom based aeration systems such as the Max-air systems have a Standard Aeration Efficiency (SAE) between 1 and 10 and are most efficient at depths deeper than 8 feet. **Robust-Aire was tested alongside 6 other leading designs by 4 other manufacturers. Between 10% and 44% more water flow was induced with the same volume of air injected into the water column.** If fish are present these aeration systems should be installed only when the oxygen levels are similar throughout the Lake (spring and fall). If you install a bottom based aeration system when oxygen is very low at the bottom you may risk killing fish.

### Max-air & Robust Air Aeration Systems



- Designed for northern climates
- Very efficient design with self cleaning technology on max-air.
- Moves up to 10,000 gpm of water / hp.
- Can operate in deep lakes (> 18 m)
- Cabinets are very quiet (< 55dB @ 10ft in large cabinets)
- Cabinets can be UL approved upon request
- Have sold over 500 systems in Canada!



Aeration model	HP	# Diffuser Assemblies	Max CFM Air Output	Max Acres 15+ ft
Max-air 0.5	0.1	1	1.9	0.1
Max-air1 Econo	0.2	1	2.4	1
Max-air2+	0.3	2	4.4	2.75
Max-air2 Pro	0.3	2	4.4	3



Max-air2 Pro



Max-air1 Econo

Robust-Air model	Surface acres	# Diffuser Assemblies
RA1	1.5	1
RA2	3	2
RA3	4.5	3
RA4	8	4
RA5	10	5
RA6	11	6



RA1-PM



RA2-PM



RA3-PM

### High Oxygen Transfer Aerators - add 3 lbs of oxygen/ hp to water

Kasco model	HP	cord	Max acre
2400 AF	½ hp	50-400 ft	1.5
3400 AF	¾ hp	50-400 ft	2
4400 AF	1 hp	50-400 ft	3



**Surface aerators** have a SAE rating of 1.5 – 3.

**The Kasco Marine** high efficiency aerators have an efficiency rating 2.5 - 3. These are more suitable in Lakes shallower than 10 feet. They can be installed at any time because they cause the oxygen levels to rise near the unit and slowly aerate the rest of the lake. They are surprisingly efficient during the winter and can be used to boost oxygen levels during late winter months.

For more information call Ackenberry at 780 878-3839, email [ackenberry1@aol.com](mailto:ackenberry1@aol.com) or go to [www.ackenberrytroutfarms.com](http://www.ackenberrytroutfarms.com)

Ackenberry only sell quality products for your aeration, fountain, weed/algae control and water clarification needs.