

# AREA

A PUBLICATION FOR AREA CUSTOMERS WORLDWIDE

# NEWS REEL

AREA CORPORATE NEWS

VOLUME 2 2007

CHILLERS  
HEATERS  
PVC  
FILTERS  
PUMPS  
NETTING  
DIFFUSERS  
AERATORS  
BLOWERS/COMPRESSORS

[WWW.AREAINC.COM](http://WWW.AREAINC.COM)

[WWW.MODERNAIRAERATOR.COM](http://WWW.MODERNAIRAERATOR.COM)

[WWW.AQUATICLSS.COM](http://WWW.AQUATICLSS.COM)

Greetings Valued Customers:

The first quarter of 2007 has been tremendous for AREA and we are on track to have a banner year for our company and surpass all of our expectations coming into 2007. This is important considering we have had the pleasure and opportunity to be in operation for over 37 years - spanning 3 generations! It is our clients that are truly the foundation for our success in this competitive global marketplace.

We take tremendous pride in everything we do and we accept all of the responsibilities that come along with being an industry leader. With this said, I had the honor to present Ms. Jessie Trushenski with the *2007 MP Mulvihill Aquaculture Student Scholarship*. Ms. Trushenski is a tremendous woman and will be an asset to the Aquaculture Industry as she is one of the most intellectual and driven person I have ever had the opportunity to meet. Ms. Trushenski attends Southern Illinois University - Carbondale and our entire team at AREA were pleased with our decision. Our scholarship is awarded annually and was established to assist Aquaculture students in completing and/or continuing their education.

In a company wide effort to give back - we are also going to be working with the *Make A Wish Foundation*. As soon as we have more information on the work we will be doing with this great organization, we will make sure it is in the next News Reel so that all of our clients are kept aware of what we are doing and how you may help us in this great effort.

We are also excited to introduce a number of new products in the first quarter of 2007 which include our **'Modern Air' Linear Air Pumps, 'Crystal Clear' Ozone Generators, Automatic Backwash Valves, Chlorine/Bromine Filters, Tank Mounted UV Sterilizers** and **Fiberglass Tanks**. You can see all of our new product pages at our *What's New Section* at [www.areasinc.com](http://www.areasinc.com). You can also call your Sales Representative to request a copy of the product pages be mailed or sent electronically to you. Our full line catalog is also available at no charge - just ask your representative for your copy today.

As mentioned in previous messages, our company continues to be very aggressive with our *Research and Development Programs* to continually improve our current products and introduce new products that will assist us in improving our clients operations with a broad range of product and system options. Expect a number of additional new product additions this year and in the coming years.

Remember to visit our useful websites which include our Corporate Website [www.areasinc.com](http://www.areasinc.com), Zoological/Public Aquarium Website at [www.aquaticlss.com](http://www.aquaticlss.com) and our 'Modern Air' Aerator Website at [www.modernairaerator.com](http://www.modernairaerator.com). Our websites provide useful information for each respective industry - 24 hours a day/7 days a week.

As always, we appreciate any suggestions or comments you may have. If you would like to see anything specific published in our newsletter, please forward your comments to [info@areasinc.com](mailto:info@areasinc.com).

Best Regards,

*Jason E. Mulvihill*

Jason E. Mulvihill  
President, **AREA**



***"THIS IS IMPORTANT CONSIDERING WE HAVE HAD THE PLEASURE TO BE IN OPERATION FOR OVER 37 YEARS - SPANNING 3 GENERATIONS! IT IS OUR CLIENTS THAT TRULY ARE THE FOUNDATION FOR OUR SUCCESS IN THIS GLOBAL MARKETPLACE."***

## POND/LAKE AERATION (DIFFUSED AERATION SYSTEMS AND AERATORS)

The spring and summer months bring high temperatures and high solar radiation levels. The result tends to be increased algae growth, fish kills and odor problems - with an increased demand for an aeration system to ensure quality water in recreational ponds/lakes, fishing ponds and even for water features that are used primarily for aesthetic purposes. We have two (2) system options that are cost effective and efficient to improve the water quality and avoid any problems so that the ponds/lakes are useful for this great time of the year!

The situation in the ponds/lakes is that in most cases due to inadequate water exchange, a thermocline has developed. This combined with the oxygen demand on the system due to accumulated organic sediments (as a result of grass trimmings, leaves, etc...) can cause fish kills and other water quality problems. Further, due to high solar radiation levels, algal growth is increased which causes aesthetic issues. In some ponds/lakes, due to the amount of organics accumulated - the oxygen in the water near the bottom is negligible resulting in anaerobic bacteria taking over decomposition. The respiratory by-product of these organisms is hydrogen sulfide. In many cases, this gas accumulates and makes it to the surface. When combined with oxygen, it forms sulfur dioxide (sometimes compared to the smell of rotten eggs). By establishing an oxygen bearing layer of water at the bottom, aerobic decomposition will re-establish thus avoiding the formation of these noxious (as well as poisonous) gases. In addition to aerobic decomposition, oxidation/reduction will assist in decomposing the organic material to silt. The destratification and movement provided by the diffused aeration and/or aerator will also keep the algal cells moving in and out of the "photosynthetic zone" which prohibits the cells from reproducing - thus solving your algae problems. Thus, the objective in the ponds/lakes is to destratify (both oxygen and temperature) and to put an oxygen bearing layer of water on the bottom without suspending the organic material.

The first system option is our **'Modern Air' Aeration Systems**. These systems utilize "sub-surface diffusion" and will effectively oxygenate and destratify the pond/lake in terms of both oxygen and temperature. Each system consists of our *4 x 6 Free Standing Diffuser Grids* and a *'Modern Air' Quiet Series Air Compressor*. There are four (4) standard systems that will aerate pond/lakes from 0.25 acre upwards of 4 acres. We also provide FREE systems design for larger lakes. Further, each system come complete with all products and peripherals for installation.

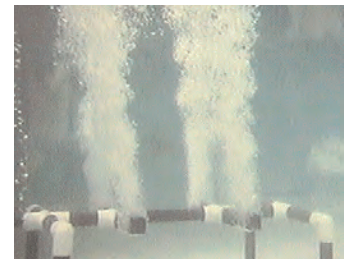
The second option is our **'Modern Air' Aerators**. Our aerators operate via our patented "airlift technology" and will also effectively aerate and destratify the pond/lake in terms of both oxygen and temperature. Each system consists of our *Aerator Base*, *Peripheral Equipment* and *Rotron Regenerative Blower*. The tremendous flow rate provided by each aerator in addition to the high oxygen transfer makes these units popular in larger lakes (1.5 Acre+). Models are available from 1 HP to 10 HP and will effectively aerate lakes up to 20 acres with a single aerator. Further, each system comes complete with all products and peripherals for installation.

Our FREE systems design is available for all projects - no matter the size of the pond/lake. Our goal is to ensure that each of our clients receive the most effective and efficient system. For more information, you can visit our Corporate Website at [www.areainc.com](http://www.areainc.com) or our Aerator Website at [www.moderniraerator.com](http://www.moderniraerator.com). Our aerator website has a short video to view.

You can also contact one of our *Technical Representatives* today to discuss your system at 800-257-AREA (2732)!



QR COMPRESSORS



DIFFUSER GRID



'MODERN AIR' AERATOR

## WATER CORNER

### AUTOMATIC BACKWASH VALVES



Our **'Crystal Clear' Automatic Backwash Valves** are the perfect device to automate your filtration system. You can use our *Automatic Backwash Valves* on new filtration systems or even to retrofit existing systems. Our *Automatic Backwash Valves* are available in 1-1/2", 2" and 3". Each Valve provides automatic backwashing and rinsing by *Pressure Sensor*, *Timer* or *Both*. Our *Automatic Backwash Valves* are designed to offer our clients the most effective and efficient operation. Our valves will fit any type of filter including Pentair, Jacuzzi, Hayward and much more.

Each *Automatic Backwash Valve* is constructed from the highest quality products and are designed for the harshest environments. Further, our valves are "field serviceable" and come with a handle that is incorporated into the socket wrench for servicing. Some of the unique features you will receive from our **Automatic Backwash Valves** include:

- **Pressure Controlled Activation Of Backwash**
- **Adjustable (1 min. - 11 min.) Backwash**
- **Adjustable (20 sec. - 4 min.) Rinse**
- **On - Off Pump Control Circuit**
- **Water Resistant Touch Pad For Manual Backwash Activation (Test), On/Off and Drain Function**
- **Auxiliary Equipment circuit Available**
- **CE Approved**
- **Low Water Cut Off Circuit**
- **Multiple Tandem Wiring Feature**

Contact an AREA *Technical Representative* for additional information, system integration, sizing and/or recommendations.

**ISSUE:****AS IT IS THE SUMMER, THE WATER TEMPERATURE IN OUR SYSTEM IS RISING. HOW DO I KNOW WHAT SIZE CHILLER I NEED TO PURCHASE?**

Thank you for asking. There are a number of parameters that go into properly selecting the most effective and efficient chiller for you systems. To size out the best chiller for you application, you will need to know the following information:

**TANK / FACILITY INFORMATION**

- 1/ Quantity Of Tank(s) In Your System:
- 2/ Dimensions Of Tank(s) In Your System (l x w x d or  $\emptyset$  x d):
- 3/ Power Available (Volts, Phase, Hz):

**PERFORMANCE INFORMATION**

- 1/ Current Temperature In Water ( $^{\circ}$ F or  $^{\circ}$ C):
- 2/ Desired Temperature To Maintain In Water ( $^{\circ}$ F or  $^{\circ}$ C):
- 3/ New Water Added To System? If So - Flow Rate (gpm) Of New Water:
- 4/ Amount Of Time (in hours) Desired Temperature Change Is Required:

With the above INFORMATION, we then need to calculate the BTU requirements for the system in order to provide the best recommendation.

The factors that we must calculate include **Heat Dissipation**, **Chill Down Of Existing Water** and **Chill Down Of New Water**. **Heat Dissipation** is the BTU's required to accommodate the loss of water temperature to the atmosphere. This calculation is based on square footage. **Chill Down Of Existing Water** is the BTU's required to lower the temperature of the water to the temperature which you wish to maintain - this must be calculated for both New Water and Existing Water.

Once the total BTU requirement is calculated, we can then select the most suitable chiller based on *Operating Horsepower*, *Operating Efficiency* and *Total Chill Down Time*. Once the chiller is selected, we can then select the proper **Plastic Water Pump** based on the Minimum and Maximum Water Flow Rates required by the chiller selected.

As chilling systems should be properly sized to provide the most effective and cost efficient system, we recommend that you consult with an **AREA Technical Representative** for proper sizing and to take advantage of our **FREE** systems design.

**If You Ever Require Technical Assistance, Our Technical Representatives Are Always Available At 800-257-AREA (2732). Further, We Offer FREE AERATION, WATER PUMPING, WATER FILTRATION, HEATING and CHILLING Systems Design. This Will Insure you have the Most Efficient and Cost Effective System You Can That Is Specific To Your Application And Facility!**

**LINEAR AIR PUMPS****AIR CORNER**

When your application requires small amounts of air but you need a reliable air pump - our **NEW 'Modern Air' Linear Air Pumps** are your solution! Our linear air pumps are high quality pumps that provide low operating costs, few moving parts and little maintenance. Each air pump has the pressure needed to overcome any differential pressure, hydrostatic head and pipe friction losses found in retail stores, hatcheries, laboratories and small ponds/lakes. Some excellent features of our units include *Low Operating Costs*, *Oil-Less Design*, *Low Maintenance*, *Low Heat* and *Few Moving Parts*.

All **'Modern Air' Linear Air Pumps** are UL Recognized and come with our 1 Year Warranty. For sizing assistance, please consult with an **AREA Technical Representative** today!



## PRO-TEMP HEAT EXCHANGER PACKAGES



Our packaged systems are the standard of quality in temperature management systems. Each **'Pro-Temp' Titanium Heat Exchanger** skid package is sized and custom designed to fit any aquatics application. No matter the amount of tanks or the volume of water - we can provide the perfect package for you. Each package arrives pre-plumbed, leak tested and ready for customer installation.

We have several types of packages available that include our *Boiler/HEX Exchanger Skid*, *Chiller/HEX Skid* and *Plate Exchangers*. Our **Boiler/HEX Skid** is a pre-plumbed, skid packaged boiler and heat transfer system. Typical applications for this skid system include single tank systems, single pass flow through designs and multi-tank recirculating applications. All skid systems include single or dual boilers, immersion or plate style heat exchangers as well as all necessary components required to provide a complete heating solution.

Our **Chiller/HEX Skid** is a pre-plumbed, skid packaged chiller and heat transfer systems. Typical applications for this skid system include single tank systems, single pass flow through designs and multi-tank recirculating applications. All skid systems include single or dual chillers, immersion or plate style heat exchangers as well as all necessary components required to provide a complete chilling solution.

Our **Plate Exchangers** are designed to provide maximum efficiency in heat transfer using non corrosive metals for various aquatic heating and cooling applications using the minimal amount of floor space. The exchangers are used in conjunction with chiller and boiler equipment. Our *Plate Exchangers* range from 4 gpm to 300 gpm. We can accommodate larger flow rates - please consult with an *AREA Technical Representative* for assistance. Each skid typically consists of several major components that include *Boiler, Heat Exchanger, Pumps, and Heat Transfer Skid*.

We also have Tube and Shell Heat Exchangers available upon request that are cost effective and efficient. Our FREE systems design is always available, so please consult with an *AREA Technical Representative* for any heating and/or chilling application to ensure that you receive the most efficient and cost effective system. Please contact us for specific literature on any package system or additional information. Our *Systems Questionnaires* are available upon request or on-line at [www.areainc.com](http://www.areainc.com).



[WWW.AREAINC.COM](http://WWW.AREAINC.COM)

[WWW.AQUATICLSS.COM](http://WWW.AQUATICLSS.COM)

[WWW.MODERNAIRAERATOR.COM](http://WWW.MODERNAIRAERATOR.COM)

800-257-AREA

PO Box 901303 Homestead, FL 33090-1303

PRSRT STD U.S. Postage PAID Permit No. 1440 So. FL Facility
---

Real Solutions. Fast Response.

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

**CALL TODAY FOR YOUR FREE CATALOG!**