



'MODERN AIR'
AERATOR

For Over 38 Years, We Have Provided Solutions For Water Treatment Systems Spanning Many Industries. Our FREE Systems Design Allows Us To Incorporate Our 5,000+ Products Into The Most Efficient And Cost Effective Systems That Provide Our Clients With The Most Management Flexibility. Our Technical Representatives Have Experience In Aeration, Water Pumping, Water Filtration, Heating And Chilling Systems Design. Our FREE Systems Design Also Allows Our Clients To Make An Informed Decision Without Any Initial Financial Commitment. Our Goal And Commitment To Our Clients Is To Ensure They Receive Superior Products With Superior Customer Service.

- **AQUACULTURE**
- **WASTEWATER**
- **GOLF COURSES**
- **LANDFILLS**
- **STORMWATER**

AREA WASTEWATER GROUP

1088 WEST MOWRY DRIVE
HOMESTEAD, FL 33030

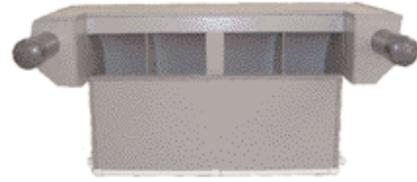
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AERATION SPECIALISTS

We have specialized in aeration for over 38 years. Our 'Modern Air' Aerator was developed as an addition to our 'Modern Air' Aeration Systems as there are many clients who require or desire aerators rather than sub-surface diffusion. Further, we were not satisfied by the traditional paddlewheels/surface aerators in the market as most are inefficient and very costly to purchase, operate and maintain. The success of our aerator has provided solutions and financial benefits to our clients worldwide in industries including Aquaculture, Wastewater, Golf Courses, Stormwater and more.

For years - the only option has been paddlewheels/surface aerators. There are many inherent problems with traditional units that make them very inefficient and costly for end users. Our Research and Development Division worked hard to create an aerator that provides the end user with an efficient and cost effective aerator with none of the problems associated with traditional units. Our 'Modern Air' Aerators were developed with "real world" testing along with testing at universities. Our 'Modern Air' Aerator is revolutionizing aeration by providing end users with an aerator that combines High Oxygen Transfer and High Flow Rate - without the historical drawbacks.



COMPANY SERVICES

As our 'Modern Air' Aerators are used in many different industries and different application, it is imperative we ensure our clients receive the proper units for their application. Our Technical Representatives have over 245 years of combined experience in virtually any application our aerators are utilized in. Further, our technicians will walk you through every step of your project from the initial consultation to the design phase to the sale and beyond as they are always available to answer any questions you may have. Our mission is to provide superior products with exceptional customer service to all clients worldwide.

With every application, we provide FREE systems design for our 'Modern Air' Aerators. You will receive complete Manifold Drawings, Proforma Invoice, System Objectives/Operations Letter and a Financial Analysis that will illustrate all of the savings our system will provide. Our FREE systems design is a service we provide to our clients as it will allow them to make an informed decision without any initial financial commitment.



Other services offered by our Wastewater Group include Consulting, Bid Specifying, Submittal Services, Installation, Commissioning, Training and O & M Manuals. Please feel free to consult with a Technical Representative for sizing assistance or additional information specific to your project. You can visit our corporate website at www.arenainc.com for all of our products and services. You can also visit www.modernairaerator.com for a Promotional Video and complete information and specifications on our revolutionary 'Modern Air' Aerator.

AERATOR APPLICATIONS

Our 'Modern Air' Aerators are being used in a wide variety of applications in many different industries worldwide. Some of the applications and industries our aerators are being used in include:

- AQUACULTURE
 - Production Ponds
 - Raceways
- GOLF COURSES
 - Ponds/Lagoons
- LANDFILLS
 - Leachate Ponds
- WASTEWATER FACILITIES
 - Wastewater Lagoons
 - Channel Systems / Raceways
 - Aeration Basins (Activated Sludge, Aerobic Sludge Digestion)
- STORMWATER RUN-OFF PONDS
 - Run-Off Lagoons/Ponds
- WINERIES/SUGAR PLANTS/FOOD AND BEVERAGE PLANTS
 - Wastewater Lagoons

Due to the principle of operation, our aerators can operate in virtually any type of application. Please feel free to consult with a Technical Representative for sizing assistance or additional information specific to your project.

AERATOR FEATURES

The features of our 'Modern Air' Aerators have helped change pond aeration technology forever. Some of the exciting features of our 'Modern Air' Aerators include:

- HIGH OXYGEN TRANSFER
- HIGH FLOW RATE
- INCREASED 'AIR TO WATER' INTERFACE
- 100% NON CORROSIVE
- 100% OIL FREE
- NO MOVING PARTS
- NO ELECTRICITY IN THE WATER
- NO BLADES/IMPELLERS/ROTORS IN THE WATER
- 'WORLD VOLTAGE' MOTORS - ALL VOLTAGES WORLDWIDE
- REMOTE DRIVE UNITS (MOTORLESS) AVAILABLE

Due to the principle of operation, our aerators can operate in virtually any type of application. Please feel free to consult with a Technical Representative for sizing assistance or additional information specific to your project.

AERATOR BENEFITS

Our 'Modern Air' Aerators are revolutionizing pond aeration in many industries. The benefits our clients receive are tremendous compared to traditional units. Some of the amazing benefits include:

- REDUCE OPERATING HORSEPOWER BY 50%
- NO MAINTENANCE
- REDUCE OPERATING COSTS
- IMPROVE WATER MOVEMENT IN PONDS
- PROVIDES "RISK FREE" OPERATING ENVIRONMENT (NO ELECTRICITY IN WATER)
- COMPLETE DESTRATIFICATION OF PONDS (OXYGEN and TEMPERATURE)
- CONDITIONS WATER - REDUCES BOTTOM SEDIMENT (ORGANICS)
- REDUCES FECALCOLIFORM LEVELS
- OIL FREE OPERATION
- REDUCES NITROGEN LEVELS

Due to the design and principle of operation, our aerators can operate in virtually any type of application and in any location. Please feel free to consult with a *Technical Representative* for sizing assistance or additional information specific to your project. You can also visit our website www.arenainc.com for all of our products and services and www.modernaeraerator.com for information and a video on our revolutionary 'Modern Air' Aerator.



AERATOR SPECIFICATIONS

Our 'Modern Air' Aerator was developed to provide clients with an aerator that provides superior performance compared to traditional paddlewheel/surface aerator units without the traditional drawbacks associated with those units. During the development of our aerators, we work with commercial operations and renowned universities for "real world" testing. This allowed us to ensure our aerators will meet the needs and requirement of any application aerators are required.

Our 'Modern Air' Aerators are a non-corrosive airlift driven aerator that pumps from 6 to 20+ million gallons of water per day and will also produce from 3.5 to 11+ lbs of oxygen per hour (depending on the HP utilized). Due to the design and principle of our aerator, we are able to provide superior performance as the *Air To Water Interface* is greatly increased and there is no wasted HP compared to traditional aerators.

Our 'Modern Air' Aerators have No Moving Parts that provides for Maintenance Free Operation and allows our aerators to run continuous duty for a minimum of 7.5 years. There are no electrical components in the water which makes our 'Modern Air' Aerators harmless for employees, facility visitors, and the like.

Each 'Modern Air' Aerator is driven by our Airlift Technology which requires low pressure drop and offers amazing efficiency. Remember, "it is much easier and efficient to pump water with air than to move it mechanically with a blade, paddle or other device". Our aerators are manufactured from *High Quality PVC* with UV inhibitors making each unit 100% non-corrosive allowing for years of durability. Each aerator is driven by our *Rotron Regenerative Blowers* providing for a safe, reliable and oil free operating environment. *Rotron Regenerative Blowers* will operate upwards of 7.5 to 10 years with no maintenance (except cleaning the air filters). We also maintain 1,200 *Authorized Repair Centers* worldwide in the event you require quick assistance with our *Rotron Regenerative Blowers*.

Because of the amazing performance and efficiency of our 'Modern Air' Aerators, your HP Per Acre will be *Reduced By At Least 50%*. As there is no wasted HP from the operation of our aerators, the HP utilized will run much more efficient and effective providing for additional savings from the operation. Further, all blowers are equipped with efficient motors as standard equipment and HIE (High Efficiency) motors are also available. If electricity is not available, we also provide Remote Drive (motorless) units which can be operated via a gasoline or diesel engine. All aerators have "world voltage" motors allowing for operation in any location in the world.

Our FREE Systems Design allows each client to ensure they are receiving the most efficient and cost effective aerator(s). In addition, the *Financial Analysis* illustrates the tangible savings that will be realized from using our 'Modern Air' Aerators. In the analysis, we will show the HP Per Acre Comparison, Cost Per Acre Comparison, and the Power Savings Differential. This allows our clients to make an informed decision before any financial commitment.



"it is much easier and efficient to pump water with air than to move it mechanically with a blade, paddle or other device".

AERATOR PACKAGE

Each 'Modern Air' Aerator comes as a complete with all equipment required for proper installation. Each 'Modern Air' Aerator comes with the following:

- AERATOR WITH BASE
- ROTRON REGENERATIVE BLOWER
- APPROPRIATE INTAKE FILTER/SILENCER ASSEMBLY
- 3" RUBBER COUPLING
- ALL PLUMBING FIXTURES FOR BLOWER AND AERATOR
- ENGINEERING SERVICES

For Bid Projects - we offer Submittal Services and Bid specifying to assist our clients globally. In addition, our Construction Group also provides *Installation, Commissioning and Training Services* if required. Our mission is to ensure all clients receive superior products with exceptional customer service and our team is available to assist in any capacity required through the project from inception to completion and beyond.

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AQUACULTURE

Our 'Modern Air' Aerators are used in Aquaculture for *Production Ponds, Raceways*, and recently even *Cage Culture Operations*. Below is a general sizing guide for our 'Modern Air' Aerators. Please note that this sizing guide is for standard size ponds (round/rectangular/ square) and for a low to medium stocking density. If the ponds are of an odd shape, stocking densities will be high or a very high flow rate is required for heavy water current, additional units will be required. Our *Sizing Guide* is as follows:



MODEL

RECOMMENDED POND SIZE

MAA0101 (1 HP, 1/3 Phase)	Up To 1.5 Acres
MAA01501 (1.5 HP, 1 Phase)	Up To 2.5 Acres
MAA0201/03 (2 HP, 1 or 3 Phase)	Up To 3.5 Acres
MAA0301/03 (3 HP, 1 or 3 Phase)	Up To 5 Acres
MAA0403 (4 HP, 3 Phase)	Up To 7 Acres
MAA0503 (5 HP, 3 Phase)	Up To 8.75 Acres

In the competitive *Aquaculture Industry*, our 'Modern Air' Aerators provide farmers with significant performance and financial benefits. Such benefits include *Reduced Operating Horsepower, Reduced Operational Costs, Eliminate Maintenance/Repair Costs*. On one farm, we are only using 39% of their former operating HP from paddlewheels and are saving them over \$102,000.00 per year in power costs alone. This allows them to pay for their investment in the first year on the power savings alone. The significant savings we provide clients allows them to use the savings in other areas of their operation resulting in a competitive advantage and additional competitiveness in the marketplace.

There are also additional savings realized as our aerators do not have any of the other ancillary costs associated with traditional paddlewheel and surface type aerators such as *Maintenance and Repair Costs* which are typically fairly high and frequent. Lastly, our aerators also provide for a *Risk Free Environment* as there is *No Electricity In The Water* and *No Blades/Impellers/Rotors* in the water which allows our clients to have the "Piece Of Mind" that there is no potential for injury from to employees, visitors and/or animals.

GOLF COURSE/POND/LAKE

Our 'Modern Air' Aerators are used in *Golf Course Ponds* worldwide including some of the largest courses in the world. We also have many units in *Homeowner Developments, Theme Parks, Corporate Parks* and much more. Water features on golf course as well as ponds/lakes in developments are very important not only for aesthetic purposes, but are also used for irrigation and other uses. The problem with most ponds/lakes is water quality. Especially in warm months, algal blooms, high nitrite levels, and heavy organic loads can cause many problems including severe odor, poor water quality and algae floating on the surface. With the increasing need for quality water and the continued limited supply of water in most parts of the country, ensuring you get the most out of your pond/lake is a priority for most clients. Choosing the most effective aerator that will provide the best results is imperative.

Our 'Modern Air' Aerators provide complete destratification in terms of both *Oxygen* and *Temperature*. Also acting as a water conditioner, our aerator creates an aerobic layer on the bottom which allows for natural decomposition of bottom organics to occur. Due to the constant water movement, algal cells are kept out of the "photosynthetic zone" which prohibits them from reproducing. Our 'Modern Air' Aerators also convert your nitrites (NO_2) into a usable form (NO_3) which will allow the water to be used for irrigation of greens, fairways, etc.. Many golf courses utilizing our aerators have found this to be one of the most beneficial aspects of our aerator as it provides significant savings in overall course management.

If the above benefits and savings are not enough - our 'Modern Air' Aerators can also be used as a **REVENUE GENERATOR** for your course! Many golf courses use our aerator as a way to generate revenue for the course. Due to the unique design of our aerator - there is a platform on the top that allows for signage to be placed on the top which provides exposure in the water for those approaching or leaving the particular pond/lake. The courses sell advertising for *Tournaments, Special Events, Community Sponsors* and everyday use such as *Yardage Markers*, etc.. Some courses simply choose to have our aerators "dressed up" with foliage and faux rocks for aesthetic purposes.

Due to the design of our aerators, each unit is *Extremely Quiet, Very Durable* and *Require No Maintenance/Repairs For A Minimum Of 5 Years*. Lastly, our aerators also provide for a *Risk Free Environment* as there is *No Electricity In The Water* and *No Blades/Impellers/Rotors* in the water which allows our clients to have the "Piece Of Mind" that there is no potential for injury from to employees and/or visitors.

WASTEWATER

For the *Wastewater Industry*, our 'Modern Air' Aerators are used in a variety of uses including *Wastewater Lagoons, Aeration Basins, SBR's, Landfill Leachate Ponds, Stormwater Run-Off Lagoons, Farm Settling Ponds* and more. With all of the regulations today and the high standards to maintain quality water in all wastewater treatment ponds (whether for wastewater plants, stormwater, landfills and others); choosing the most effective aerator that will provide the best results is imperative. If the correct unit is not chosen, the result can be thousands of dollars in fines, high power costs, high maintenance costs, and more.

Our 'Modern Air' Aerators provide for *High Oxygen Transfer* and a *High Flow Rate* with *Minimal Horsepower*. The end result is the *HP Per Acre* is reduced by at least 50% with most applications to date requiring much less HP (an average of 27% of the former HP used). As our aerators are *100% Non Corrosive*, they are manufactured for use in any environment (even in highly corrosive applications). The durability of our aerators provide for *No Maintenance/Repairs* for a minimum of 5 to 7 years. The savings our 'Modern Air' Aerators provide our clients are endless and making it one of the key advantages. Our clients will save significant amounts of money in *Power Costs*. At one municipal facility, we are only using 19% of their former operating HP from a surface aerator and are saving them over \$212,000.00 per year in power costs alone. We are also saving facilities money from no longer paying fines for high fecalcoliform bacteria levels. In 10 days, our aerators have reduced fecalcoliform bacteria levels by as much as 80%. Our aerators will also act as a "water conditioner" and will completely destratify the pond/lagoons in terms of *Oxygen* and *Temperature* - allowing for natural decomposition of organics.

The savings from power costs and fines alone allow for the facilities to pay for the investment in the first year! The additional savings you will realize come from not having any of the other ancillary costs associated with traditional paddlewheel and surface type aerators such as *Maintenance Costs, Repair Costs, and Replacement Costs* which are typically high and frequent.

Lastly, you will have the "Piece Of Mind" that there is no potential for injury to any staff members or visitors from electricity in the water, or from blades/impellers as our 'Modern Air' Aerators have none of the above!



WASTEWATER GROUP

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