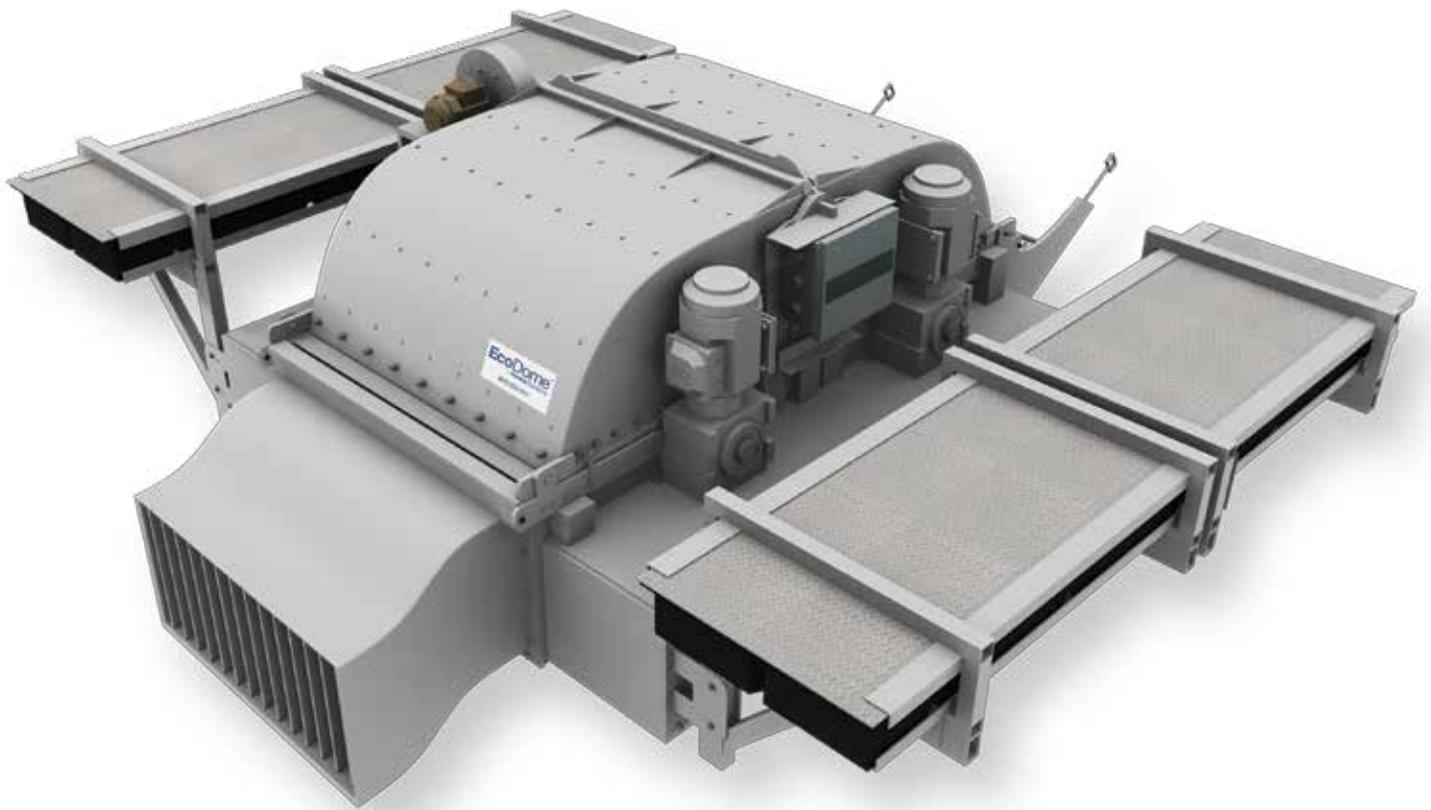


Aeration reinvented.



EcoDome[™]
by AeratorSolutions



The **new** aeration process that **adds air** and **subtracts costs.**

Over the past fifty years, not much has changed in wastewater aeration. **Until now.**

Introducing the **EcoDome™** hyperbaric aeration system.

Featuring a revolutionary gas-to-liquid exchange, the EcoDome™ aeration system is a completely new way of aerating wastewater, borrowing the same hyperbaric oxygenation principles used in health care. The system controls the environment in which the oxygen transfer takes place in a hyperbaric dome. The system degasses then re-gasses large volumes of wastewater in real time, very efficiently.



What does this mean for wastewater treatment plants?

- **Reduced energy consumption**

Drawing less than 15kW of power during normal operation, the EcoDome has demonstrated a significant reduction in energy consumption compared to conventional aeration technology.

- **Less sludge production and dredging**

The combination of effective aeration and mixing has, in demonstrated cases, reduced sludge volume and enhanced effluent quality by adding greater levels of oxygen into the process.

- **Less spray, noise and odor**

With the aeration and mixing process self-contained within the dome, both noise and odor are virtually eliminated. Spray and mist are also contained within the dome.

- **Less maintenance**

The EcoDome system is plug and play. All the components are manufactured with the highest quality materials. The entire system is virtually maintenance free for optimum efficiencies.

- **Rugged, reliable design**

Manufactured in the U.S., the EcoDome aerator is developed using in-house design, engineering and production with short lead times.

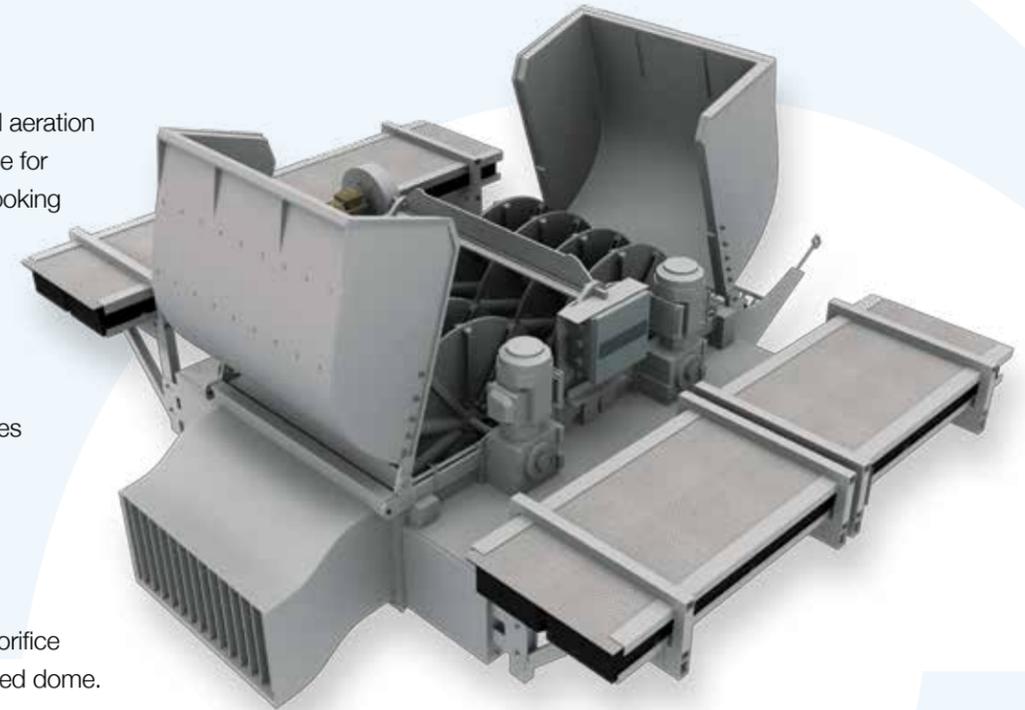
- **Adaptable to a variety of settings**

From lagoons and oxidation ditches to concrete basins, the EcoDome aeration system was designed to fit virtually any type of application for just about any type of wastewater treatment facility. Industrial or municipal, retrofitted or new construction, the EcoDome is designed to meet a variety of treatment scenarios.



Applying innovative oxygen transfer methods to wastewater.

We set out to improve on traditional aeration technologies that have been in place for more than a half-century. And, by looking at how oxygen is transferred in other industries, we applied the hyperbaric dome to wastewater aeration. With a true gas-to-liquid interface, the EcoDome hyperbaric aeration system substantially reduces energy consumption.



How it works.

- Large rotors with a proprietary orifice design rotate under a pressurized dome.
- The system degasses then re-gasses large volumes of wastewater in real time, very efficiently, under a slightly pressurized environment.
- Aeration and mixing happen simultaneously. No additional mixers are required.
- Due to the violent action of the rotors under the dome, organic build up is prevented for a self-cleaning system.
- With the enclosed dome, spray misting and odor is virtually eliminated and protects critical machine components.
- Robust and practically maintenance-free system.
- Versatile configuration: Inline, tethered or fixed.



A smarter mixing process.

- Design flexibility allows for operation in very shallow and deep environments by virtue of the horizontal plane of mixing.
- Pumping high volumes of water with multiple rotors allows for mixing to take place concurrent to aeration.
- The horizontal mixing process reduces the risk of disturbing the bottom of the basin, whether clay, earthen or lined.
- Mixing can occur without aeration for anoxic mixing applications.



Scientifically tested. Ph.D. approved.



Just ask the experts at Georgia Tech. Scientists and research engineers at the Georgia Institute of Technology conducted a series of field tests at Skidaway Island, GA Wastewater Treatment Plant to measure the efficiency of the EcoDome aeration system.



Field tests at Skidaway Island, GA Wastewater Treatment Plant.

Results concluded that the EcoDome aerator not only provides excellent BOD reduction, but also greatly reduces energy consumption.

- The plant's power usage dropped from a peak of 137,000 kW to just over 30,000 kW per month.
- The drop in power usage translated to a dramatic cost decrease from \$11,700 to \$3,300 per month.

The final outcome.

Scientists and users agree: the EcoDome is an innovative aeration system that has the ability to improve wastewater treatment efficiency.

*“In conclusion, we strongly believe that the [EcoDome] aerator, due to its **unique features**, has a great potential to outcompete commercial, surface aerators by economically producing **excellent quality effluent**, which can then be re-used in several applications, thus **reducing the carbon footprint** of wastewater treatment plants. Taken all together, the [EcoDome] aerator represents a more **sustainable, green technology**, which can find many applications in the field of both municipal and industrial wastewater treatment.”*

*– Dr. Spyros G. Pavlostathis, Ph.D., BCEEM, F.IWA, F.WEF
School of Civil & Environmental Engineering, Georgia Institute of Technology*

Where trusted performance and cutting-edge meet.

Aerator Solutions is a leading provider of aerators and mixers for industrial and municipal wastewater treatment. We're known the world over for the rock-solid performance of our EcoJet™ High-Speed Aerator and EcoJet™ High-Speed DDM Mixer. Most recently, we've introduced the EcoDome™ aeration system – employing a hyperbaric dome – which is further redefining how wastewater is treated.

Our service and expertise in wastewater treatment is trusted worldwide. We assist in design, planning, and implementation of our aeration and mixing products to meet your process requirements with ultimate efficiency.

AeratorSolutions
For the World's Wastewater™

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The specifications and dimensions in this catalog are intended to be representative and illustrative of the size, function and appearance of our products. The descriptions, data, and charts are not intended to be engineering specifications universally applicable to specific design problems. Since particular designs, installations, and plants call for specific requirements, we recommend that customers consult Aerator Solutions for exact data and recommendations that may be required for special applications.