

# TORNADO™

## Surface Aspirating Aerator

### Proven Year-Round Aeration Performance.

The next generation TORNADO Surface Aspirating Aerator delivers innovative and economical performance in any season. Featuring a refined high-efficiency design, the TORNADO Aerator horizontally mixes all or part of a basin. Its large-diameter stationary draft tube with unrestricted air intake helps convert the least amount of energy into the maximum amount of aeration and mixing, giving you:

- \* High oxygen transfer efficiency
- \* High basin mixing efficiency

Aeration action goes on just below the surface. No spraying. No splashing. So it reduces odors and prevents ice build-up, while the unique self-heating design keeps the system working all winter long. And because it's a totally self-contained unit requiring no additional blowers, pumps or mounting platforms, you save capital, installation and operating costs.

*Typical TORNADO Aerator Installation*



*TORNADO Aerator displayed mounted on floats.*

### Engineered For Flexibility.

Ideal for wastewater treatment and supplemental aeration, the TORNADO Aerator provides complete basin design flexibility. Angle adjustment locking bolts allow optimization of horizontal mixing velocities and bubble hang time. Fully adjustable mounting on floats or brackets allows aeration of any depth or shape basin. It's also simple to direct aeration and mixing toward a deficient area. Models available from 2 to 100 horsepower (1.5 - 75.0 kilowatt). High-efficiency or premium efficiency standard C-face motors increase the system's design versatility. AEROMIX can recommend configurations best suited for your application.

### Extensive Applications.

TORNADO Surface Aspirating Aerators improve aeration and mixing in a wide range of applications, including:

- \* Wastewater Treatment
- \* Cold Weather Operation
- \* Ice Control
- \* Supplemental Aeration
- \* VOC Removal
- \* Odor and Algae Control
- \* Leachate Treatment

## Maximum Dependability, Minimal Maintenance.

Proprietary engineering and meticulous construction specifications ensure that the aerator runs right from the beginning and keeps running without time-consuming maintenance. Large models include vibration dampeners to prevent vortexing and fatigue failure. The dampeners also minimize the need for vortex shields, a common requirement for other aeration devices. The non-fouling subsurface propeller will not foul even in heavy solids. Tapered roller bearings securely support the aerator shaft preventing vibration and taking up all propeller thrust loads. This helps extend motor bearing life. Slow speed operation (1,725 RPM at 60 hertz or 1,450 RPM at 50 hertz) further extends aerator life and

increases mixing efficiency. You'll find other long-lasting performance features, such as:

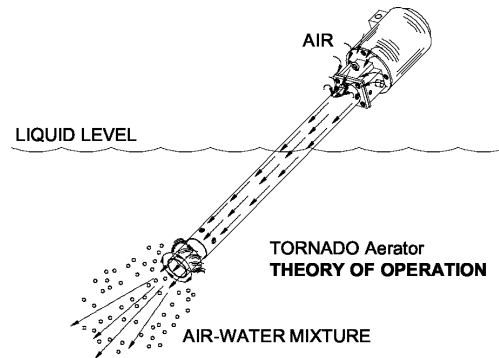
- \* Corrosion- and UV-resistant stainless steel construction throughout
- \* Solid shaft vibration free design
- \* Patented sealed tapered roller bearings
- \* Low-maintenance patented replaceable modular seals
- \* Simplified motor change out and motor/shaft coupling

In addition, factory testing for each TORNADO Surface Aspirating Aerator checks and rechecks that the equipment meets the AEROMIX stringent standards for quality.

### Industrial Applications.

The AEROMIX team of experienced engineers developed the high-efficiency TORNADO Aerator as an economical and effective solution for many different types of industries, including:

- \* Chemical Processing
- \* Wine And Beverage Manufacturers
- \* Textile Industries
- \* Pulp And Paper Mills
- \* Municipal Waste-water Treatment
- \* Dairies



### Designed For Optimal Bubble Hang-Time.

The TORNADO Aerator mounts at an angle in the water with the motor and air intake above the surface and the propeller below. The motor rotates, turning the solid shaft which spins the propeller. Water moves at a high velocity through and near the propeller blades, creating a low pressure zone at the hub. The low pressure draws air in through the stationary intake and down the large-diameter draft tube. The air exits into the water at the propeller hub. Turbulence and flow created by the propeller breaks up the air bubbles, mixes the basin and disperses oxygen. Horizontal water movement generated by the TORNADO Aerator maximizes oxygen transfer in three ways: by pulling un-oxygenated water in while pushing oxygenated water away; by minimizing the coalescence of bubbles in the plume; and by increasing the air aspiration rate.

### Ask About The Full Aeration Line.

AEROMIX manufactures a complete line of specialized aeration and mixing equipment for treating water and wastewater in industrial, municipal and freshwater markets. Call today to learn more about the AEROMIX aeration solutions best for your application.



AEROMIX Systems, Inc.  
7135 Madison Ave. West  
Minneapolis, MN 55427 U.S.A.

Ph: 800/879-3677, 763/746-8400  
Fax: 763/746-8408  
e-mail: aeromix@aeromix.com  
web site: [www.aeromix.com](http://www.aeromix.com)

### Rental units available.

Covered by United States Patent Nos. 4,741,870 - 5,160,667 - 5,183,596.  
© 2007, AEROMIX Systems, Inc.