

# TORNADO®

## Surface Aspirating Aerator

### Proven Year-Round Aeration Performance

The field proven TORNADO Surface Aspirating Aerator delivers dependable and economical performance in any season. Featuring a high-efficiency design, the TORNADO Aerator horizontally mixes all or part of a basin. The 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
- Dependable and reliable operation

All aeration takes place just below the surface so there is no spraying or splashing. Odors are reduced, and ice build-up is prevented with the unique self-heating design that keeps the system working in all seasons. Because the TORNADO is a totally self-contained unit requiring no additional blowers, pumps or mounting platforms, you save capital, installation and operating costs.

*Typical TORNADO Aerator Installation.*



*Float mounted TORNADO.*

### Engineered For Flexibility

Designed for wastewater treatment and supplemental aeration, the TORNADO Aerator provides complete basin design flexibility. It is simple to direct aeration and mixing toward a deficient area with the angle adjustment locking bolts, which allow for optimal horizontal mixing velocities and bubble hang time. Fully adjustable mounting on floats, bridges and walls allow for aeration and mixing of any depth or shape basin and tank. Models are available from 2 to 100 horsepower (1.5 - 75 Kw). High-efficiency or premium efficiency standard C-face motors increase the system's design versatility. AEROMIX can recommend configurations best suited for your specified 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

Superior design and high quality construction, ensure the TORNADO Aerator will perform from the very start, and with minimal maintenance year after year. The heat treated solid 17-4 stainless steel shaft is supported by mechanical sealed tapered roller bearings for vibration free reliability. This design allows the TORNADO Aspirating Aerator to be used in applications with heavy solids and grit. A large, non-fouling, sub-surface propeller is engineered to resist all ragging. The flexible coupling absorbs any thrust load, so it is not transferred to the motor, extending its life and eliminating the need for expensive heavy-duty motor bearings and costly repairs. The low speed operation, 1750 RPM, further increases aerator life and mixing efficiency.

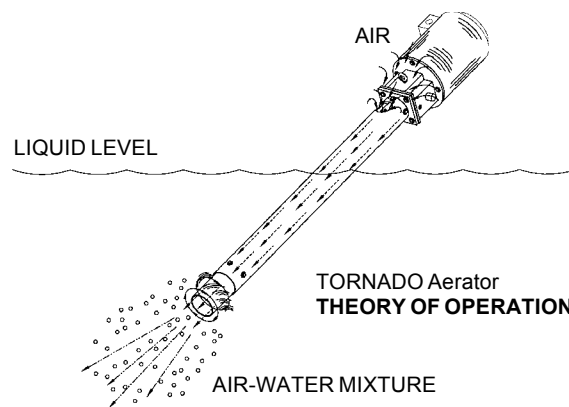
Other long-lasting performance features include:

- Low-maintenance, replaceable modular seals increase dependability.
- Simplified motor change-out and motor/shaft coupling reduce down-time and maximize aerator performance.
- All stainless steel construction prevents corrosion and UV degradation.
- Easy angle adjustment optimizes aeration/mixing performance and treatment capacity.
- Factory testing of each TORNADO ensures they meet the highest performance standards in the industry.

### 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 Wastewater 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 directing air to 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 enters the water at the propeller hub. Turbulence and flow created by the propeller break up the air bubbles to mix the basin and disperse 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.

Made in the U.S.A. by



**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

**Rental units available.**

Covered by United States Patent Nos. 4,741,870 - 5,160,667 - 5,183,596.  
© 2003, AEROMIX Systems, Inc.