



# Twister<sup>®</sup>

## LOW-SPEED SURFACE AERATOR



### High Oxygen Transfer Rate and Mechanical Reliability.

The Twister low-speed surface aerator provides high-oxygen transfer rates for the most challenging and heavily loaded industrial and municipal applications. It is designed for long-term, continuous operation in applications requiring high-oxygen demand. Twister optimizes the spray of water droplets, resulting in some of the highest oxygen-transfer rates of any

mechanical aeration system. The Twister low-speed aerator's high oxygen transfer makes it ideal for a wide range of high-oxygen-demand biological treatment applications, from activated sludge to oxidation ditches and extended aeration operations, in municipal, petrochemical, pulp and paper, and other industries.

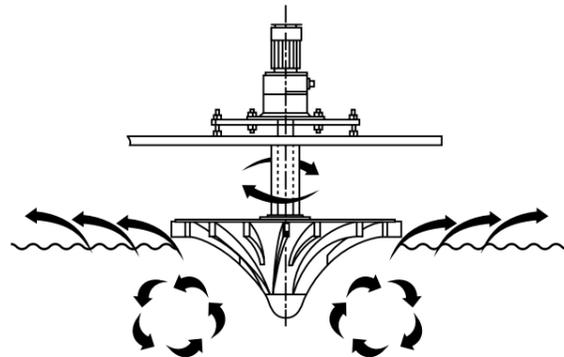


## Designed for High Efficiency and Maximum Durability

Twister low-speed aerators are designed to create a strong pumping force that pulls oxygen-deficient water up from the bottom of the basin, and exposes it to the air above the water's surface. At the surface, the water is ruggedly mixed, creating a 360-degree circular pattern. The uniquely designed rotors rotate slowly, typically 40 to 100 rpm, providing exceptional circulation to the deepest parts of the basin floor. The FRP/fiberglass reinforced polyester rotors are designed to withstand even the harshest wastewater, resisting corrosion and abrasion. The rotor's smooth edge design is proven to prevent snared rags and bags.

The motor is designed for outdoor use in wet environments, and can be supplied to meet any power requirement. Models are available from 5 to 100 HP (3.75 to 75kW) and 50 or 60 Hz service. Using the latest in power transmission technology, the Twister converts the least amount of energy into the maximum amount of rotor torque for excellent aeration and deep basin mixing.

Twister aerators can be float-mounted using a three-pod stainless steel float-and-support structure, allowing the unit to move up and down with fluctuating water levels. The stainless-steel pontoons are filled with closed-cell polymer foam, providing a rugged, long-life float system. Twister aerators can also be installed as a fixed unit— mounted to a bridge or platform. Fixed-mount aerators have four mounting studs, allowing for proper level and height adjustment. Each Twister is factory-tested to ensure that the equipment meets Fluence's stringent standards for quality.



## Design Parameters

The Twister aerator's features include:

- Flange coupling for high-torque, lifetime performance
- Standard motor for easy availability and replacement
- Float- or fixed-mount units to meet process requirements

- Minimum 2.0 gearbox safety factor to ensure long life
- Floating fiberglass reinforced rotor
- Slow speed operation (40 to 100 rpm)
- 5 to 100 HP (3.75 to 75 kW) units available
- Operation with soft starts or VFDs

## Engineered for Minimal Maintenance

- Floating rotor eases installation and reduces axial stress on the gearbox.
- All bearings are ball or roller-type, and standard units are dip or splash oil lubricated, providing a constant flow of oil to all surfaces without the need for pumps or pipes.

- Shafts, couplings, gearboxes, and support structures are oversized to reduce wear, vibration, and long-term maintenance.
- Available gearbox features a sight glass for monitoring the oil level while the unit is operating, and gasket covers for gear inspection without disassembly.

## Municipal & Industrial Applications

The Twister low-speed aerator is ideal for application requiring high oxygen transfer. Twisters are also highly suited for use in oxidation

ditches when installed at the radius and used in conjunction with supplemental mixers installed in the channels of the oxidation ditch.

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### Twister Applications:

- Supplemental Aeration
- Lagoons
- Aeration basins
- Oxidation ditches
- Landfill/leachate treatment
- Sequencing Batch Reactors (BSRs)

### Industries:

- Pulp & Paper mills
- Chemical Processing
- Wine & Beverage Manufacturers
- Agriculture Waste
- Oil & Gas

## Fluence is Your EXPERT

With thousands of installed units around the world, Fluence is your expert provider for wastewater treatment solutions. We offer all major wastewater aeration technologies and the expertise to help you select and apply the equipment best suited for your application. Our technical experts are ready to assist you with the proper sizing, layout, and operation of your aeration system.

## About Fluence

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Formed in 2017 following the consolidation of independent water treatment solution providers Emefcy and RWL Water, Fluence Corporation was established with the vision of becoming the leading global provider of fast-to-deploy smart decentralized and packaged water, wastewater and reuse treatment solutions. With some 300 highly-trained water professionals with experience operating in 70 countries, Fluence provides local and sustainable

treatment solutions while empowering businesses and communities worldwide to make the most of their water resources. With core operations in North America, South America, the Middle East, Europe and China, Fluence offers an integrated range of solutions across the complete water cycle - from early stage evaluation, through design and delivery, to ongoing support, optimization of water related assets, operations and financing.

Fluence is a public company traded on the Australian Securities Exchange (FLC).

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Value from Water