Maximum Oxygen Transfer and Efficient Mixing

Based on extensive experience in the aeration industry, Fluence developed the Hurricane aerator to surpass other diffused or submersible aeration systems. Fine bubble aeration ensures maximum treatment efficiency and intense mixing area. The high-speed rotating impeller propels water at high velocities through extended diffuser pipes, creating agitation and influencing a large mixing area. By mixing and aerating from the bottom up, the Hurricane ensures complete solids suspension.

The aerator also grinds and cuts solids for maximum contact between bacteria, oxygen, and waste material. A hardened 17-4 stainless steel impeller allows for operation in applications with up to 4% solids.
Reliable Wide-Area Aeration

Developed through years of intensive research, this 360° radial mixing system incorporates unique air diffusers designed for high oxygenating efficiency and thorough mixing over a wide area. The completely submerged operation also eliminates splashing, reduces hazardous aerosols, and allows for stable biochemical treatment in even the coldest temperatures.

Principle of Operation

The Hurricane self-aspirating aerator is designed for submerged operation; the aerator utilizes a chemical-duty, explosion-proof, water-cooled motor. The motor shaft spins the impeller (the only moving part), which creates a low pressure zone and pulls air from above the water surface. Air and water are mixed together efficiently, and the air is broken into fine bubbles by the spinning impeller. The turbulence and flow created by the impeller disperses the air and water mixture through the diffuser pipes. The fine air bubbles rise and efficiently mix the water above and around the unit, creating circular mixing throughout the basin.
Durable Construction

- Available in 304 or 316 (optional) stainless steel configuration to prevent corrosion, even in the harshest environments
- Stainless steel air intake pipe will not deteriorate from exposure to UV rays
- Hardened 17-4 stainless steel impeller machined from a single piece of steel for added durability against solids
- Non-fouling, high-efficiency impeller is balanced for minimum vibration and maximum solids cutting without disassembly
- Factory-attached electrical cable (25 feet standard, other cable lengths available upon request)
- Submersible, water-cooled, chemical-duty, explosion-proof motor
- Silicon carbide seals prevent water from entering the motor
- The base of the aerator features large, extended legs for stable, wide radius support
- Vibration dampening legs helps prevent unit from moving in basin

Easy Installation & Low Maintenance

- The impeller is the only moving part: ensures minimized wear
- Free-standing unit: no anchoring required
- Self-aspirating operation to depths of 26 feet without the need for external blowers
- Adjustable legs allow easy leveling of unit on most basin floors without an additional level pad

Easily Customized

- Units available in 5-100HP (3.75 - 75kW)
- Can be operated as an aerator/mixer or just a mixer
- Accommodates fluctuations in water levels (motor must be submerged)
- Multiple diffuser lengths can adjust for any basin shape to maximize mixing efficiency

Efficiency for Industry

The HURRICANE aerator’s thorough mixing and aeration provides excellent performance for many different markets including:

- Municipal wastewater treatment
- Wine and beverage manufacturing
- Dairy products production
- Food and meat processing plants
Extensive Applications
The unique, self-aspirating design creates fine bubble aeration and mixing, effective in a variety of applications, including:

- Aerobic digesters
- Sludge holding tanks
- Activated sludge basins
- Flow equalization basins
- Post-aeration basins
- Sequencing Batch Reactors (SBR)
- Deep tank applications with small surface areas

Available Accessories

- Lifting crane and chains for easy removal, moving, and installation
- Guide rails for applications close to the wall or needing exact placement
- Extended diffuser pipes for large tanks
- Rubber diffuser pipes for tanks with uneven bottoms
- Filter/silencer for quieter operation
- 3-way valve/throttle to allow oxygen control and alternating between mixing only or aeration/mixing

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

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).