

AeratorSolutions
For the World's Wastewater™



Meet the
workhorses
of wastewater.

EcoJet™
Aerators and Mixers



We make aerators
and mixers.

We deliver reliability
and cost savings.

**If a product after 50 years
is still the industry standard,
you've done something
very right.**

We've been making aerators and mixers for a long time. The first floating mechanical aerator design – now our EcoJet™ High-Speed Aerator – was developed in 1963. The EcoJet™ High-Speed DDM Mixer design was introduced shortly thereafter, in 1969.

Our aeration and mixing workhorses have been known the world over for their rock-solid performance and efficiency.

Aerator Solutions is dedicated to providing the most advanced and effective aerator and mixing technologies for the wastewater industry. From tried-and-true solutions to cutting-edge technologies, we offer complete, start-to-finish engineering solutions for aeration and mixing.



• DEVELOPMENT • EVALUATION • DESIGN • MANUFACTURING • INSTALLATION • SERVICE

**Your operations.
Our partnership
approach.**

While our aeration and mixing equipment leads the industry, our partnership approach to doing business means you're not only investing in the most trusted solutions for wastewater applications, you're entering into a partnership dedicated to helping your wastewater operation run with more efficiency.

**Fast shipping.
Nimble production
capabilities.**

There's no need to wait extended periods of time for your aeration system. With a large inventory of in-stock components, we offer short lead times. We can ship repair parts and leased or rented equipment just as fast.

More than fifty years of proven performance.

For more than half a century, the EcoJet™ High-Speed Aerator design has proven to the world its unparalleled capabilities for municipal and industrial wastewater treatment. With ultimate versatility, no other mechanical aerator is more rugged or more efficient. And no other company is more trusted than Aerator Solutions.

Operational benefits

- Unparalleled performance
- Superior reliability
- Low operating costs
- Remarkable resistance to environmental conditions that can cause wear and damage



When it comes to floating aerators and efficiency, there is no competition.

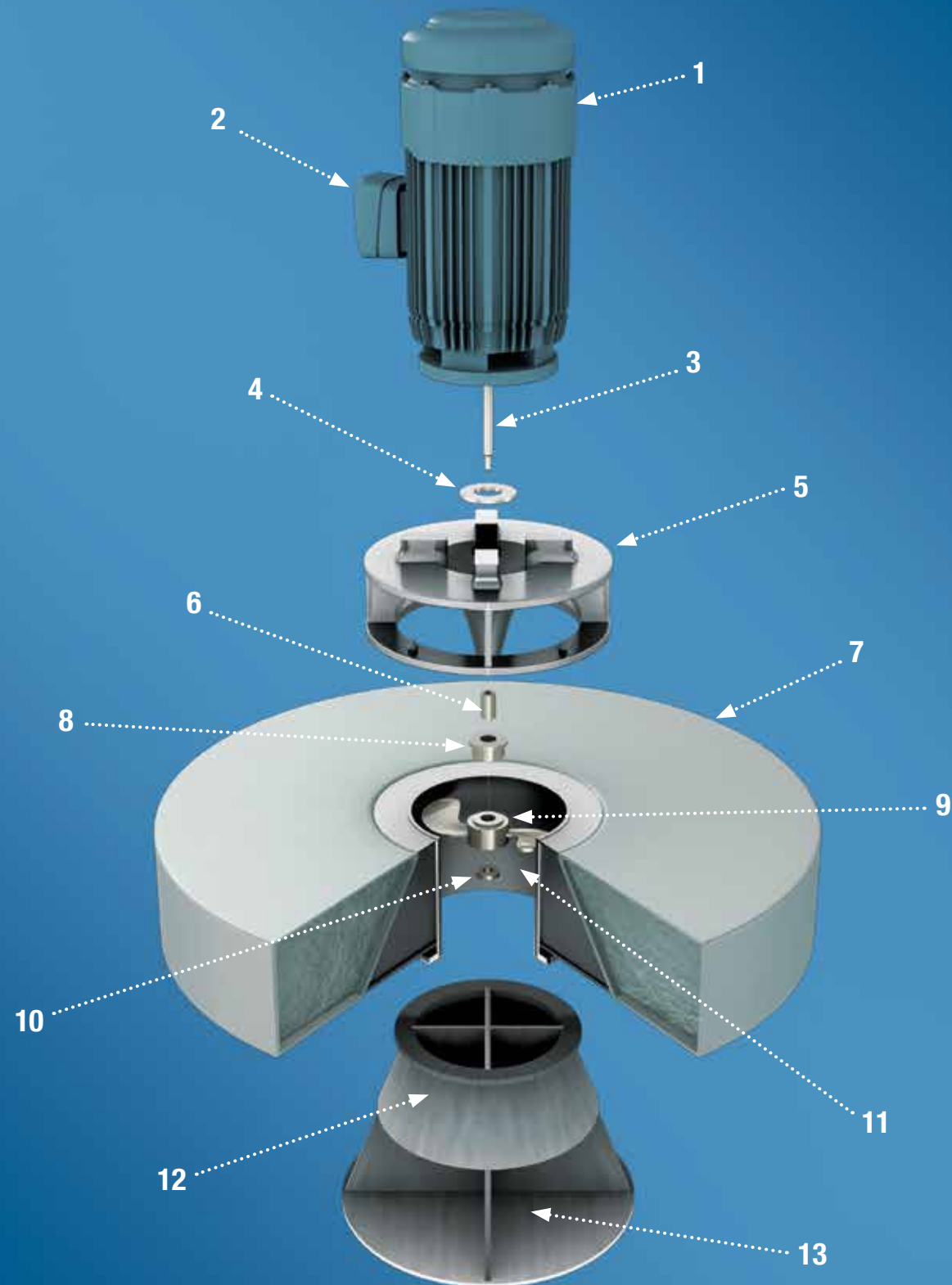
Providing powerful pumping action, the EcoJet™ High-Speed Aerator transfers oxygen by breaking up wastewater into a spray of particles. This action creates more surface area for atmospheric pressure to drive oxygen into the wastewater. At the same time, the oxygen-enriched water is dispersed and mixed. The entire process offers more efficient wastewater treatment for municipalities and industrial applications.

Typical wastewater treatment applications

- SBRs
- Aerated lagoons
- Cooling
- Activated sludge
- Post aeration
- Equalization basins



The highest quality components and materials in the business.



Major features and components.

1 Proprietary Motor

- Totally enclosed motor, fan-cooled
- Heavy gauge cast iron fan shield
- Class F insulation
- Service factor of 1.15, optionally up 1.25
- Standard or premium efficient available
- Double-row bearings on drive end
- Heavy-duty L-10, 100,000-hour bearings
- Dynamically balanced and vibration tested
- Designed to meet the most demanding operational requirements

2 Motor Junction Box

- Opening in motor housing for winding leads is completely potted with epoxy filler
- Larger box for easier wiring

3 Motor Shaft

- One-piece continuous shaft from upper bearings to the propeller
- 17-4 PH stainless steel in the 1150°F heat-treated condition
- 135,000 PSI minimum yield strength, 35% stronger than competition
- Largest diameter shaft
- Threaded and keyed on drive end for simple propeller installation

4 Labyrinth Seal Guard

- Positioned below the bottom motor bearing to prevent moisture from migrating up the shaft into the lower bearing

5 Discharge Cone

- Massive monolithic casting, heavier than competition
- Large integral webs for rigid stability and increased lateral strength
- Designed for minimum head loss
- 304L or 316L stainless steel or cast steel epoxy-coated
- Provides for lowest vibration levels
- Produces maximum diffusion of water particles
- 100% contact with the volute, which distributes both static and dynamic loads

6 Deflector Bearing

- Shaft runs free under normal operating conditions
- Provides support only when under load

7 Float

- Largest one-piece float available
- Engineered to provide stability and better buoyancy
- Fiberglass reinforced polyester (FRP), or
- 14-gauge, 304L or 316L stainless steel
- Filled with closed-cell polyurethane foam that adds structural stability and prevents the possibility of sinking if damage occurs to the float exterior

8 Debris Deflector

- Machined for smooth fluid passage over the surface
- Material: Delrin® - An Industry-Leading, High-Performance Acetal Resin made by DuPont™
- Attached with three recessed, stainless steel set screws
- Double engagement provides an extra measure of preventing water migration up the shaft

9 Propeller and Key

- Maintenance friendly propeller exchange with keyed design and threaded shaft
- Keyed to mate to motor shaft in proper position
- Secured to shaft by stainless steel locking nut
- Precision investment casting
- 316L or 15-5 stainless steel
- Dynamically balanced
- Anti-fouling, non-cavitating for greater operational efficiency

10 Locking Nut

- Stainless steel
- Firmly and securely locks the propeller to the shaft
- Just two tools required to install or remove the propeller

11 Volute

- 304L or 316L stainless steel
- All sizes have bottom flange for simple bolt-on attachment of the standard intake cone or optional anti-erosion assembly or draft tube
- Gussets at top and bottom flanges add strength

12 Intake Cone

- 304L or 316L stainless steel
- Hydraulically designed for proper loading on propeller
- Sufficiently sturdy to support assembled aerator on hard, flat surface
- (Optional) Draft Tube for deep water depth application

13 Antierosion Assembly (optional)

- For low-water depth applications

The right material.
The right model.
The right results.

The EcoJet™ High-Speed Aerator offers a variety of standard aerator models and custom material combinations to help you achieve your effluent goals. Our experts can assist you determine the right choice for you operations that can ensure maximum return on investment, cost-effective operations and efficient results.

SSS Series

- Motor Shaft – One-piece 17-4 PH stainless steel
- Propeller – 316L or 15-5 stainless steel, dynamically balanced
- Discharge Cone – 304L stainless steel, monolithic casting
- Volute – 304L stainless steel
- Intake Cone – 304L stainless steel
- Float – 14-gauge, 304L stainless steel shell filled with closed-cell polyurethane foam

SFG Series

- Motor Shaft – One-piece 17-4 PH stainless steel
- Propeller – 316L or 15-5 stainless steel, dynamically balanced
- Discharge Cone – 304L stainless steel, monolithic casting
- Volute – 304L stainless steel
- Intake Cone – 304L stainless steel
- Float – Fiberglass-reinforced polyester shell filled with closed-cell polyurethane foam

CSS Series

- Motor Shaft – One-piece 17-4 PH stainless steel
- Propeller – 316L or 15-5 stainless steel, dynamically balanced
- Discharge Cone – Cast steel, monolithic casting, epoxy coated
- Volute – 304L stainless steel
- Intake Cone – 304L stainless steel
- Float – 14-gauge, 304L stainless steel shell filled with closed-cell polyurethane foam

CFG Series

- Motor Shaft – One-piece 17-4 PH stainless steel
- Propeller – 316L or 15-5 stainless steel, dynamically balanced
- Discharge Cone – Cast steel, monolithic casting, epoxy coated
- Volute – 304L stainless steel
- Intake Cone – 304L stainless steel
- Float – Fiberglass-reinforced polyester shell filled with closed-cell polyurethane foam

Special Materials

For applications that require special materials, such as 316, 316L or other materials, please contact us or request a quote for more information.

Reliably adding air for more than 50 years.

EcoJet™ Aerator Models

Every aerator is slightly different. Just like your operations. That's why Aerator Solutions offers several different model selections to meet your efficiency and regulatory requirements. Review the typical surface aerator application characteristics below to determine the EcoJet™ model that's right for your operations. Then contact us to request a quote.

1800 RPM

| Model | HP | RPM | IMP | DCM | DOD | DEPTH |
|--------|---------|-----------|-----|-----|-----|-------|
| A2 | 2 | 1800 | 9 | 28 | 95 | 7 |
| A3 | 3 | 1800 | 18 | 40 | 145 | 8 |
| A5 | 5 | 1800 | 20 | 45 | 150 | 8 |
| A5 DS | 5/2.2 | 1800/1200 | | 31 | 103 | 8 |
| A7 | 7.5 | 1800 | 21 | 50 | 160 | 9 |
| A7 DS | 7.5/3.3 | 1800/1200 | | 34 | 111 | 9 |
| A10 | 10 | 1800 | 23 | 55 | 180 | 10 |
| A10 DS | 10/4.4 | 1800/1200 | | 35 | 97 | 10 |
| A15 | 15 | 1800 | 25 | 64 | 214 | 10 |
| A15 DS | 15/6.6 | 1800/1200 | | 42 | 137 | 10 |

1200 RPM

| Model | HP | RPM | IMP | DCM | DOD | DEPTH |
|---------|---------|----------|-----|-----|-----|-------|
| A20 | 20 | 1200 | 28 | 76 | 265 | 10 |
| A20 DS | 20/11.2 | 1200/900 | | 62 | 201 | 10 |
| A25 | 25 | 1200 | 30 | 85 | 295 | 10 |
| A25 DS | 25/14.0 | 1200/900 | | 70 | 222 | 10 |
| A30 | 30 | 1200 | 32 | 93 | 310 | 10 |
| A30 DS | 30/16.8 | 1200/900 | | 75 | 229 | 10 |
| A40 | 40 | 1200 | 33 | 107 | 330 | 11 |
| A40 DS | 40/22.5 | 1200/900 | | 86 | 275 | 11 |
| A50 | 50 | 1200 | 34 | 111 | 360 | 12 |
| A50 DS | 50/28.1 | 1200/900 | | 89 | 278 | 12 |
| A60 | 60 | 1200 | 35 | 122 | 395 | 12 |
| A60 DS | 60/33.7 | 1200/900 | | 96 | 295 | 12 |
| A75 | 75 | 1200 | 36 | 137 | 440 | 12 |
| 7511 DS | 75/42.2 | 1200/900 | | 109 | 322 | 12 |

900 RPM

| Model | HP | RPM | IMP | DCM | DOD | DEPTH |
|---------|----------|---------|-----|-----|-----|-------|
| A100 | 100 | 900 | 40 | 155 | 400 | 15 |
| A100 DS | 100/69.4 | 900/750 | | 120 | 285 | 15 |

Notes

- Highlighted areas indicate dual-speed aerators
- IMP – Impingement diameter in feet (white water)
- DCM – Diameter of complete mix in feet
- DOD – Diameter of complete oxygen dispersion in feet
- DEPTH – Nominal operating depth where IMP, DCM and DOD hold true

Unmatched efficiencies.

EcoJet™ Aerator Stainless Steel Float Series

Designed for effluent processing that's beyond compare, the SSS and CSS stainless steel EcoJet™ High-Speed Aerators are available in three different models to produce effective results for your operations.

1800 RPM Stainless Steel Floats

| Model | HP | RPM | A | B | C | D | SHAFT | WEIGHT |
|--------|---------|-----------|-------|------|------|------|-------|--------|
| A2 | 2 | 1800 | 40.00 | 7.0 | 47.0 | 15.0 | 1.375 | 350 |
| A3 | 3 | 1800 | 44.13 | 11.0 | 60.0 | 15.0 | 1.375 | 550 |
| A5 | 5 | 1800 | 44.13 | 11.0 | 60.0 | 15.0 | 1.375 | 550 |
| A5 DS | 5/2.2 | 1800/1200 | 44.13 | 11.0 | 60.0 | 15.0 | 1.375 | 550 |
| A7 | 7.5 | 1800 | 46.63 | 11.0 | 60.0 | 15.0 | 1.750 | 650 |
| A7 DS | 7.5/3.3 | 1800/1200 | 49.13 | 11.0 | 60.0 | 15.0 | 1.750 | 650 |
| A10 | 10 | 1800 | 51.69 | 12.0 | 71.0 | 19.0 | 1.750 | 975 |
| A10 DS | 10/4.4 | 1800/1200 | 55.63 | 12.0 | 71.0 | 19.0 | 1.750 | 975 |
| A15 | 15 | 1800 | 55.63 | 12.0 | 71.0 | 19.0 | 1.750 | 1,000 |
| A15 DS | 15/6.6 | 1800/1200 | 59.56 | 12.0 | 71.0 | 19.0 | 1.750 | 1,000 |

1200 RPM Stainless Steel Floats

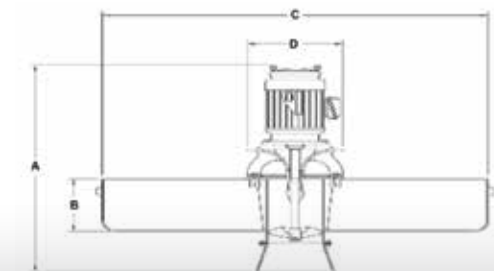
| Model | HP | RPM | A | B | C | D | SHAFT | WEIGHT |
|--------|---------|----------|--------|------|-------|-------|-------|--------|
| A20 | 20 | 1200 | 67.94 | 14.0 | 84.0 | 23.00 | 2.125 | 1,350 |
| A20 DS | 20/11.2 | 1200/900 | 68.82 | 14.0 | 84.0 | 23.00 | 2.125 | 1,350 |
| A25 | 25 | 1200 | 68.82 | 14.0 | 84.0 | 23.00 | 2.125 | 1,400 |
| A25 DS | 25/14.0 | 1200/900 | 69.70 | 14.0 | 84.0 | 23.00 | 2.125 | 1,400 |
| A30 | 30 | 1200 | 86.94 | 16.0 | 96.0 | 27.75 | 2.245 | 1,900 |
| A30 DS | 30/16.8 | 1200/900 | 90.31 | 16.0 | 96.0 | 27.75 | 2.245 | 1,900 |
| A40 | 40 | 1200 | 90.31 | 16.0 | 96.0 | 27.75 | 2.900 | 1,975 |
| A40 DS | 40/22.5 | 1200/900 | 93.70 | 16.0 | 96.0 | 27.75 | 2.900 | 1,975 |
| A51 | 50 | 1200 | 90.31 | 16.0 | 96.0 | 27.75 | 2.900 | 2,050 |
| A51 DS | 50/28.1 | 1200/900 | 93.70 | 16.0 | 96.0 | 27.75 | 2.900 | 2,100 |
| A50 | 50 | 1200 | 101.06 | 16.0 | 116.0 | 34.25 | 2.900 | 2,900 |
| A50 DS | 50/28.1 | 1200/900 | 102.81 | 17.0 | 116.0 | 34.25 | 2.900 | 2,975 |
| A60 | 60 | 1200 | 102.81 | 16.0 | 116.0 | 34.25 | 2.900 | 3,100 |
| A50 DS | 60/33.7 | 1200/900 | 102.81 | 17.0 | 116.0 | 34.25 | 2.900 | 3,200 |
| A75 | 75 | 1200 | 102.81 | 16.0 | 116.0 | 34.25 | 2.900 | 3,150 |
| A75 DS | 75/42.2 | 1200/900 | 104.56 | 17.0 | 116.0 | 34.25 | 2.900 | 3,250 |

900 RPM Stainless Steel Floats

| Model | HP | RPM | A | B | C | D | SHAFT | WEIGHT |
|---------|----------|---------|--------|------|-------|------|-------|--------|
| A100 | 100 | 900 | 120.0 | 17.0 | 131.0 | 45.0 | 3.930 | 4,700 |
| A100 DS | 100/69.4 | 900/750 | 124.00 | 19.0 | 131.0 | 45.0 | 3.930 | 4,950 |

Notes

- Highlighted areas indicate dual-speed aerators
- SHAFT – Shaft diameter
- All dimensions in inches
- WEIGHT – Approximate shipping weight (lbs.)
- Weight is in pounds



Chemically resistant..... Cost effective.

Fiberglass Float Series

Designed for wastewater treatment applications in corrosive environments, fiberglass EcoJet™ High-Speed Aerators provide unparalleled protection. The SFG and CFG EcoJet™ High-Speed Aerators are available in three different models.

1800 RPM Fiberglass Floats

| Model | HP | RPM | A | B | C | D | SHAFT | WEIGHT |
|--------|---------|-----------|-------|------|------|------|-------|--------|
| A2 | 2 | 1800 | 40.00 | 7.0 | 47.0 | 15.0 | 1.375 | 350 |
| A3 | 3 | 1800 | 44.13 | 11.0 | 64.5 | 15.0 | 1.375 | 550 |
| A5 | 5 | 1800 | 44.13 | 11.0 | 64.5 | 15.0 | 1.375 | 550 |
| A5 DS | 5/2.2 | 1800/1200 | 44.13 | 11.0 | 64.5 | 15.0 | 1.375 | 550 |
| A7 | 7.5 | 1800 | 46.63 | 11.0 | 64.5 | 15.0 | 1.750 | 650 |
| A7 DS | 7.5/3.3 | 1800/1200 | 49.13 | 11.0 | 64.5 | 15.0 | 1.750 | 650 |
| A10 | 10 | 1800 | 51.69 | 12.0 | 71.5 | 19.0 | 1.750 | 925 |
| A10 DS | 10/4.4 | 1800/1200 | 55.63 | 12.0 | 71.5 | 19.0 | 1.750 | 925 |
| A15 | 15 | 1800 | 55.63 | 12.0 | 71.5 | 19.0 | 1.750 | 950 |
| A15 DS | 15/6.6 | 1800/1200 | 59.56 | 12.0 | 71.5 | 19.0 | 1.750 | 950 |

1200 RPM Fiberglass Floats

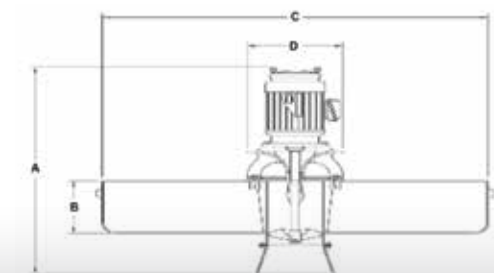
| Model | HP | RPM | A | B | C | D | SHAFT | WEIGHT |
|--------|---------|----------|--------|------|-------|-------|-------|--------|
| A20 | 20 | 1200 | 67.94 | 14.0 | 84.5 | 23.00 | 2.125 | 1,150 |
| A20 DS | 20/11.2 | 1200/900 | 68.82 | 14.0 | 84.5 | 23.00 | 2.125 | 1,150 |
| A25 | 25 | 1200 | 68.82 | 14.0 | 84.5 | 23.00 | 2.125 | 1,200 |
| A25 DS | 25/14.0 | 1200/900 | 69.70 | 14.0 | 84.5 | 23.00 | 2.125 | 1,200 |
| A30 | 30 | 1200 | 86.94 | 16.5 | 96.0 | 27.75 | 2.245 | 1,900 |
| A30 DS | 30/16.8 | 1200/900 | 90.31 | 16.5 | 96.0 | 27.75 | 2.245 | 1,900 |
| A40 | 40 | 1200 | 90.31 | 16.5 | 96.0 | 27.75 | 2.900 | 1,950 |
| A40 DS | 40/22.5 | 1200/900 | 93.70 | 16.5 | 96.0 | 27.75 | 2.900 | 1,950 |
| A51 | 50 | 1200 | 90.31 | 16.5 | 96.0 | 27.75 | 2.900 | 2,000 |
| A51 DS | 50/28.1 | 1200/900 | 93.70 | 16.5 | 96.0 | 27.75 | 2.900 | 2,050 |
| A50 | 50 | 1200 | 101.06 | 16.5 | 116.0 | 34.25 | 2.900 | 2,400 |
| A50 DS | 50/28.1 | 1200/900 | 102.81 | 16.5 | 116.0 | 34.25 | 2.900 | 2,500 |
| A60 | 60 | 1200 | 102.81 | 16.5 | 116.0 | 34.25 | 2.900 | 2,800 |
| A60 DS | 60/33.7 | 1200/900 | 102.81 | 16.5 | 116.0 | 34.25 | 2.900 | 2,900 |
| A75 | 75 | 1200 | 102.81 | 16.5 | 116.0 | 34.25 | 2.900 | 2,850 |
| A75 DS | 75/42.2 | 1200/900 | 104.56 | 16.5 | 116.0 | 34.25 | 2.900 | 2,950 |

900 RPM Fiberglass Floats

| Model | HP | RPM | A | B | C | D | SHAFT | WEIGHT |
|---------|----------|---------|--------|------|-------|------|-------|--------|
| A100 | 100 | 900 | 120.00 | 20.0 | 116.0 | 45.0 | 3.930 | 4,450 |
| A100 DS | 100/69.4 | 900/750 | 124.00 | 23.0 | 116.0 | 45.0 | 3.930 | 4,650 |

Notes

- Highlighted areas indicate dual-speed aerators
- Shaft – Shaft diameter
- All dimensions are in inches
- WEIGHT – Approximate shipping weight (lbs.)
- Weight is in pounds



EcoJet™ (DDM) Mixers – The standard for mixing efficiency.

EcoJet™ mixers from Aerator Solutions are a time-tested, proven solution achieving efficient operations for some of the most rugged and demanding mixing applications.

Available in the SSS Series and SFG Series, the EcoJet™ High-Speed DDM Mixer has withstood the test of time and continues to provide superior results, straightforward operation and easy maintenance.

Applications

- SBRs
- Disinfection
- Equalization
- Neutralization
- Denitrification
- Anoxic Systems
- Directional Mixing
- Blending Combined Streams

Features

- Wide range of materials of construction
- Proprietary TEFC Motor design with one-piece shaft
- Motor base available in any type stainless steel
- Floats available in stainless steel or fiberglass
- Complete mooring and electrical accessories available
- Optional equipment for special installation requirements



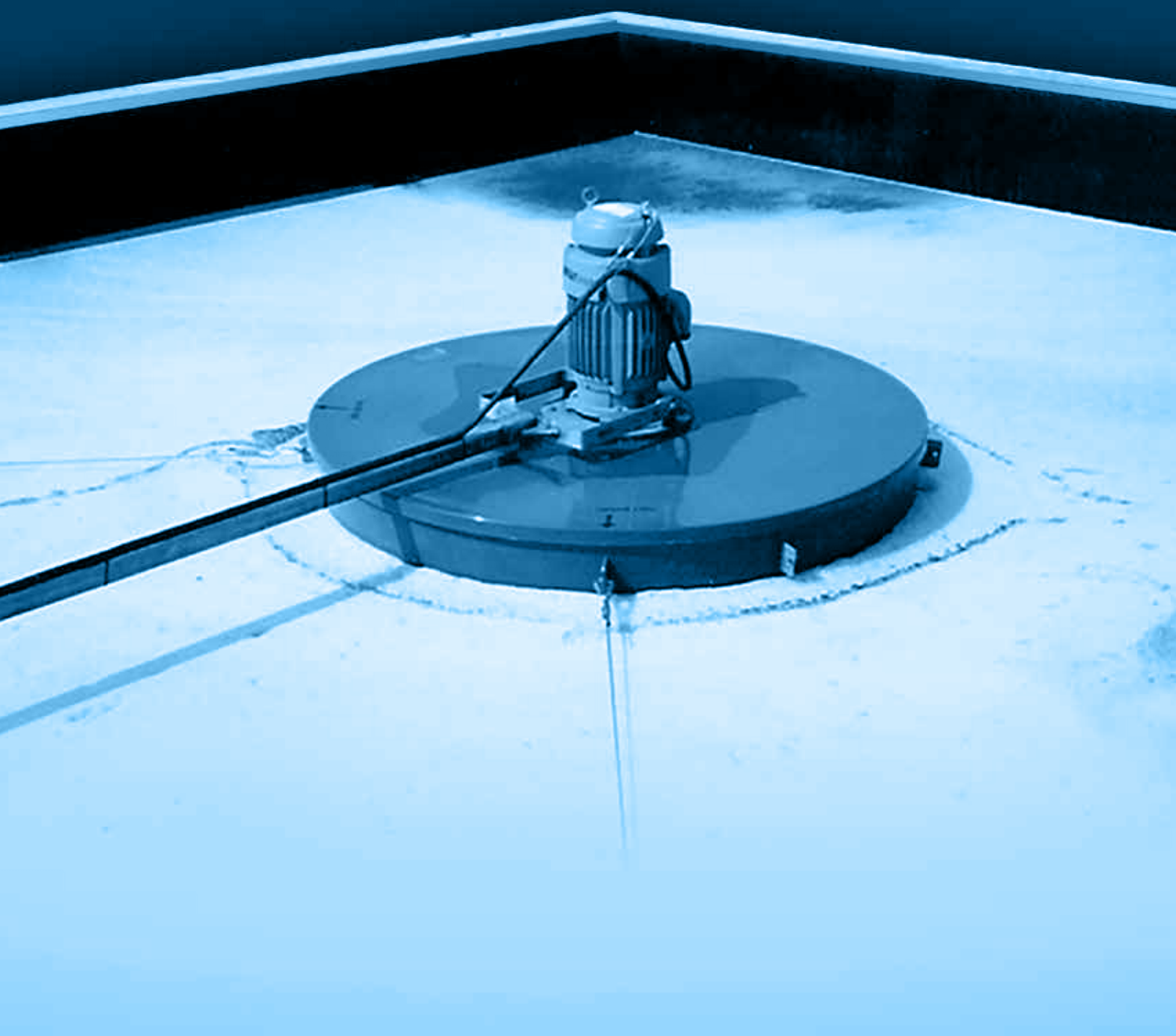
The choice is yours.

The EcoJet™ High-Speed DDM Mixer offers a variety of options to meet your compliance requirements. Offering a vast range of ratings and horsepower to bring versatility and performance to your operations.

Materials of construction

| Standard model | SSS Series | SFG Series |
|---------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Motor Shaft | One-piece 17-4 PH stainless steel | One-piece 17-4 PH stainless steel |
| Propeller | 316L or 15-5 stainless steel | 316L or 15-5 stainless steel |
| Motor Base Assembly | 304L stainless steel | 304L stainless steel |
| Discharge Volute Assembly | 304L stainless steel | 304L stainless steel |
| Float Core | 304L stainless steel | 304L stainless steel |
| Float | 14-gauge, 304L stainless steel shell, filled with closed cell polyurethane foam | Fiberglass reinforced polyester shell, filled with closed-cell polyurethane foam |

EcoJet™ (DDM) Mixers – A smarter mixing solution.



Motor

- Totally enclosed, fan-cooled
- Rated severe chemical duty
- Class F insulation
- Double-row bearings on drive end
- Heavy-duty L-10, 100,000 hour bearings
- Heavy-duty seals
- Largest diameter shafts
- Stainless steel hardware
- Service factor of 1.15
- Designed to meet demanding operational requirements



Propeller

- Precision investment casting
- 316L or 15-5 stainless steel
- Dynamically balanced
- Keyed to mate to motor shaft
- Secured by stainless steel locking nut
- Simple installation or removal
- Anti-fouling, non-cavitating for greater operational efficiency



Motor Module

- One-piece 17-4 PH stainless steel shaft
- Shaft threaded and keyed on drive end
- 135,000-PSI shaft yield strength
- Dynamically balanced
- Hydraulically balanced
- Optimized motor module design minimizes vibration



Float

- Largest one-piece floats available
- Fiberglass reinforced plastic or 14-gauge, 304L stainless steel
- Engineered to provide stability
- Filled with closed-cell polyurethane foam adds stability and prevents possibility of sinking if damage occurs to float exterior



Motor Base Assembly

- 304L stainless steel or epoxy coated steel
- Interlocking debris deflection in lower portion of assembly
- Alignment of motor controlled by machine index
- Double engagement of debris deflector provides protection of motor windings and bearings when motor is reversed
- Deflector bearing located at end of motor base
- Shaft runs free under normal operating conditions
- Proprietary seal design



Discharge Volute Assembly

- 304L stainless steel
- Reinforced with gussets to maintain dimensional integrity
- Volute is transitioned to retain more velocity of fluid for improved performance
- Advanced hydraulic features maximize mixer efficiency



Your wastewater treatment operations are in solid hands.

Aerator Solutions
For the World's Wastewater



Refurbished equipment. Low investment. High efficiencies.

There's no reason to sacrifice efficiencies just because a brand new aerator or mixer isn't in the budget. With options for purchasing a refurbished system or reconditioned components, Aerator Solutions can make what was old seem new again. And help give your operations a boost without breaking the budget.

Better than New™ Equipment

Aerator Solutions can recondition the motor module by refurbishing the discharge cone or motor base from our own, and any competitors' aerator or mixer. We will recondition the components, and add a new motor, shaft parts, and propeller to make a Better than New motor module.

- Dynamically balanced motor module to ensure long life of unit
- Significant savings will result depending on unit size



EcoFurbished™ Equipment

EcoFurbished™ aerators and mixers are systems from Aerator Solutions that were previously used as rentals or other applications. Re-built to our strict standards, our EcoFurbished solutions are available for shipment immediately, based on current inventory.

- Significant savings compared to new equipment
- 1-year mechanical warranty

Proprietary motor designs for peerless processing.

One of the many reasons Aerator Solutions is the leading aerator solution for the wastewater industry, is our proprietary motor design brings ultimate efficiencies to your operations. The EcoJet™ High-Speed Aerator TEFC motors are specifically suited for pulp and paper mills requiring severe-duty, long-life motors.

What's more, when you work with one of our experts, we can help you determine typical cost savings. We'll simply determine the number of motors on site, number of operational hours for each unit, kilowatt-hour cost, and then provide a calculation showing the estimated savings typically garnered from EcoSaver™ motors.

EcoJet™ aerator TEFC Motor standard features

- Class F insulation
- One piece 17-4PH stainless steel shaft
- Rated severe chemical duty
- Totally enclosed fan-cooled
- Potted junction box for motor leads
- 135,000 psi yield strength on motor shaft
- Available in all OSHA colors
- One-year mechanical warranty
- 1.15 service factor

Optional features

- Dual speed
- Space heaters
- Explosion proof
- Tnemec special paints
- Thermal overload protection
- InproSeal bearing isolators at both ends
- EcoSaver™ energy efficient upgrade with 3-year mechanical warranty
- 1.25 service factor
- IEEE 841

Technical details

- Bearing protection meets IP56
- Rubber lead separator between terminal box and frame
- Epoxy paint system exceeds 250 hours salt fog test
- Interior surfaces are epoxy coated
- Non-sparking fan
- NPT threaded terminal box
- Seamless copper lead lugs
- Seamless stainless steel grease extension tubes
- Class F insulation (Impregnation resin and magnet wire are Class H)
- All frames with re-greasable ball bearings

Electrical Power Cable Selection

Depending on your configuration, Aerator Solutions has the right power cables and electrical accessories for a variety of horsepower and requirements. Don't see the cable size or accessory you need? Just contact us for further assistance.

| 230 VOLTAGE | | AWG CABLE SIZE | | | | | | | | |
|-------------|------|----------------|------|------|------|------|------|------|------|-------|
| HP | AMPS | 12-4 | 10-4 | 8-4 | 6-4 | 4-4 | 2-4 | 0-4 | 00-4 | 000-4 |
| 2 | 6.8 | 520 | 910 | 1400 | | | | | | |
| 3 | 9.2 | 290 | 630 | 990 | 1540 | | | | | |
| 5 | 15 | 200 | 380 | 600 | 930 | 1420 | | | | |
| 7.5 | 22 | | 255 | 405 | 630 | 965 | 1525 | | | |
| 10 | 28 | | | 320 | 500 | 780 | 1240 | | | |
| 15 | 40 | | | | 345 | 525 | 835 | 1265 | | |
| 20 | 52 | | | | | 405 | 645 | 975 | 1195 | |
| 25 | 64 | | | | | | 520 | 785 | 970 | |
| 30 | 76 | | | | | | 445 | 655 | 805 | 980 |
| 40 | 100 | | | | | | | 500 | 610 | 740 |
| 50 | 122 | | | | | | | | 520 | 620 |

| 460 VOLTAGE | | AWG CABLE SIZE | | | | | | | | |
|-------------|------|----------------|------|------|------|------|------|------|------|-------|
| HP | AMPS | 12-4 | 10-4 | 8-4 | 6-4 | 4-4 | 2-4 | 0-4 | 00-4 | 000-4 |
| 2 | 3.4 | 2090 | | | | | | | | |
| 3 | 4.6 | 1600 | | | | | | | | |
| 5 | 7.5 | 975 | 1540 | | | | | | | |
| 7.5 | 11 | 660 | 1040 | 1630 | | | | | | |
| 10 | 14 | 510 | 810 | 1270 | 1990 | | | | | |
| 15 | 20 | | 570 | 895 | 1395 | 2110 | | | | |
| 20 | 26 | | | 680 | 1060 | 1630 | | | | |
| 25 | 32 | | | 550 | 870 | 1320 | 2240 | | | |
| 30 | 38 | | | | 720 | 1095 | 1865 | 2620 | | |
| 40 | 50 | | | | | 820 | 1395 | 2000 | | |
| 50 | 62 | | | | | | 1155 | 1620 | 1990 | |
| 60 | 76 | | | | | | 960 | 1350 | 1655 | 1995 |
| 75 | 90 | | | | | | | 1100 | 1350 | 1620 |
| 100 | 127 | | | | | | | 790 | 985 | 1260 |

| 575 VOLTAGE | | AWG CABLE SIZE | | | | | | | | |
|-------------|------|----------------|------|------|------|------|------|------|------|-------|
| HP | AMPS | 12-4 | 10-4 | 8-4 | 6-4 | 4-4 | 2-4 | 0-4 | 00-4 | 000-4 |
| 2 | 2.7 | 2760 | | | | | | | | |
| 3 | 4 | 2325 | | | | | | | | |
| 5 | 6 | 1530 | 2430 | | | | | | | |
| 7.5 | 9 | 1025 | 1625 | 2545 | | | | | | |
| 10 | 11 | 830 | 1320 | 2070 | | | | | | |
| 15 | 16 | | 965 | 1425 | 2225 | | | | | |
| 20 | 21 | | 690 | 1080 | 1690 | | | | | |
| 25 | 26 | | | 870 | 1360 | 2070 | | | | |
| 30 | 30 | | | 745 | 1155 | 1745 | | | | |
| 40 | 40 | | | | 875 | 1325 | 2100 | | | |
| 50 | 49 | | | | 715 | 1085 | 1725 | | | |
| 60 | 61 | | | | | 895 | 1425 | | | |
| 75 | 71 | | | | | 810 | 1260 | | | |
| 100 | 101 | | | | | | | 1230 | 1540 | 1970 |

Notes

- AMPS – Full load AMPS
- Maximum cable length in feet, based on 5% voltage drop and a .90 power factor

Electrical Accessories

Power Cable



- Flexible stranded copper conductors with lightweight, high dielectric strength insulation
- Rated at 105 degrees centigrade
- Superb flexibility, superior abrasion, ozone, chemical, oil and water resistance
- Manufactured with non-wicking polypropylene fillers
- Stamped "water-resistant"

Power Cable Support Bracket

- Standard on stainless steel, optional on fiberglass floats
- Bracket is welded to float on stainless steel models
- Power cable is clamped to brackets to protect cable from abrasion

Quick Disconnect Plug



- Fully insulated
- Abuse-resistant
- Heavy-duty housings
- Series of neoprene glands are supplied with plugs and connectors to ensure a reliable seal at cable entry point
- Gasketed locking rings and covers prevent contamination from dust, water and other matter

Strain Relief Grip



- Designed to prevent tension from being transmitted to joints and terminals on the power cable, which could result in pullout
- Stronger than cable in most applications
- Gives much greater security than use of compression fitting alone
- Available in sizes that match specific cable used

Power Cable Float



- Holds power cable at water surface
- Avoid possibility of cable dragging on bottom and getting ingested into aerator

Quick-Disconnect Receptacle



- Fully insulated and abuse-resistant
- Heavy-duty nylon housings
- All metal parts made of corrosion resistant materials, color-coded by voltage, in accordance with I.E.C. standards for quick and easy identification of matching devices
- Self-closing cover provides a weatherproof seal

Electrical Cable Tie



- Heavy-duty weather-resistant nylon
- Variety of available sizes to accommodate cable sizes used on aerator
- Minimum loop tensile strength 120 pounds (complies with paragraph 3.5.1 of MIL-S-23190E)

Compression Fitting



- Seals power cable into the motor junction box
- Available in sizes that match specific cable used

Accessorize your aerator. Make the most of your operations.

Whether you need spray control or anti-icing capabilities, optional accessories are available for ultimate efficiencies.

EcoMask™ Spray Containment Dome

Used to control and contain the mist and spray generated by the pumping action of the aerator, the spray dome controls the water discharge and directs the water back into the bulk liquid, minimizing mist and retaining heat.

EcoPak™ Anti-Ice Diffuser

Made of a cast aluminum ring, the EcoPak is bolted to the top of the discharge cone to minimize ice build-up on the machine. The ring contains heating cable and ranges from 1000 to 5000 watts, based on the horsepower of the aerator. The anti-ice diffuser is equipped with an integral junction box that contains an automatic, adjustable thermostat. The anti-ice diffuser requires an independent, 2-conductor electrical power cable for operation.

Low Trajectory Diffuser

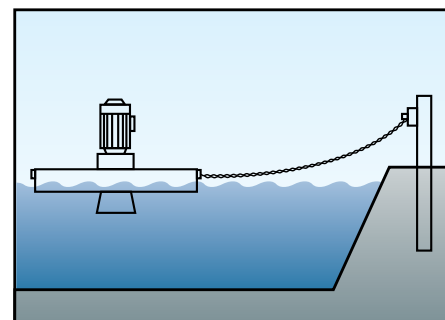
The low trajectory diffuser (LTD) ring is bolted to the top of the discharge cone to lower the aerator spray pattern. The LTD assembly reduces windblown spray and misting, and reduces icing in colder climates.

Anti-Erosion Assembly

The anti-erosion assembly consists of a standard intake cone with an integral plate, attached to the bottom. The anti-erosion assembly causes water to be drawn from the sides, rather than from directly below the aerator, thus helping to prevent bottom erosion that can sometimes occur in earthen or lined basins. These assemblies are also used to prevent disturbance of the sludge blanket in lagoon systems.

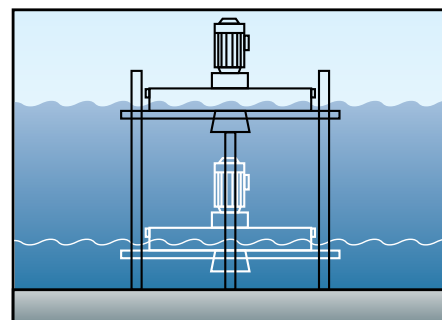
Anchor your aerator. Mooring arrangements.

There's more to mooring than meets the eye. Variations in water levels can influence wastewater treatment applications and selecting the proper mooring configuration for your operations can help increase overall efficiencies.



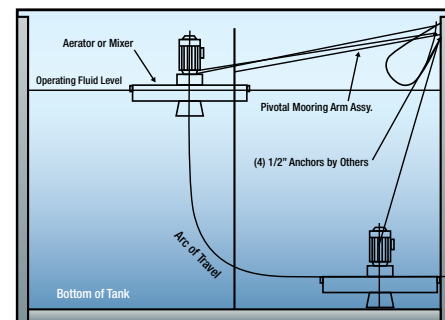
Shore Mooring

Most common mooring arrangement. Shore end connection is made to eyebolt or embedded anchor.



Restrained Mooring

For applications with large variations in water level. The restrained mooring frame fits around the mooring posts and allows the aerator to slide up and down the posts with changes in water level.



Pivotal Mooring

Pivotal mooring arms allow the aerator to move vertically with any change in the water level, and allow the aerators to be pulled to the side of the tank for maintenance.

Mooring Accessories

Mooring Cable



- Designated by the number of strands in the cable and the number of wires in each strand.
- In cable specified by Aerator Solutions, 7x19 means 7 strands of 19 wires each.
- All mooring cable is manufactured of 7x19 strand, 304 stainless steel.

| HP | DIA | WGHT | STGH |
|-------|------|------|--------|
| 2-30 | 3/16 | 65 | 3,700 |
| 40-75 | 1/4 | 110 | 6,400 |
| 100 | 3/8 | 243 | 12,000 |

Notes

HP Aerator horsepower
DIA Cable diameter in inches
WGHT Approximate weight per 1,000 feet in pounds
STGH Nominal breaking strength in pounds

Shackles

- Heavy-duty functionality
- 304 stainless steel
- Available sizes: 3/16", 1/4", and 3/8" for use with corresponding diameter mooring cable
- Attached to the thimble
- Allows for easy detachment of the aerator from the mooring line



Extension Spring



- Used for small variations in water levels
- Stainless steel construction
- Installed at mooring points for approximately 10 inches of expansion for each spring

Thimble

- Heavy-duty functionality
- 316 stainless steel
- Available size: 3/16", 1/4", and 3/8" for use with corresponding diameter mooring cable



Snap Hook

- Heavy-duty functionality
- 304 stainless steel
- Available sizes: 3/16", 1/4", and 3/8" for use with corresponding diameter mooring cable
- Attached to thimble
- Allows for simple detachment of the aerator from the mooring line for scheduled maintenance or other services



Mooring Hardware Arrangement – 3/16" - 1/4"



- For up to 30 HP: use one thimble and one clip on each end of the mooring line
- Above 30 HP: use one thimble and two clips on each end of the mooring line.

Wire Rope Clip

- Heavy-duty U-bolt clips
- 316 stainless steel
- Available sizes: 3/16", 1/4", and 3/8" for use with corresponding diameter mooring cable



Mooring Ring

- 304 stainless steel
- Connect aerators together when not moored to shore, posts, or concrete blocks



Larger Mooring Hardware Arrangement – 3/8"



- Consists of one thimble and two wire rope clips on each end of the mooring line
- Install U-bolt section of wire rope clips on "dead" or short end of cable
- Install saddle on "live" or long end of cable
- Apply second clip as near to thimble as possible



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Waiting on replacement parts can often cause costly downtime for municipal and industrial wastewater treatment plants. That's why Aerator Solutions makes it quick and easy to order replacement parts to ensure your operations maintain efficiencies.

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Parts are 100 percent interchangeable with the following systems:

- Aqua-Jet® by Aqua-Aerobics
- Evoqua
- US Filter
- Aerators, Inc.
- Siemens
- Aqua-Lator®
- Welles Products/Peabody Welles

If buying isn't an option, rent or lease.

Sometimes there just isn't enough capital in the budget to invest in new equipment. That doesn't mean your operations or efficiencies need to suffer. Aerator Solutions offers lease and rental plans to meet your operational requirements and your budget restrictions.

Lease programs give the option to pay for the equipment over time while offering immediate installation.

Rental programs are useful options for emergency situations that require additional aeration equipment and quick installation.

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Our service technicians visit your facility at a convenient time and provide detailed evaluations of your aerators and mixers. Following the evaluation, our experts will visit with you about preventative maintenance, system upgrades, or necessary repairs to maintain your equipment at optimum efficiencies.

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