



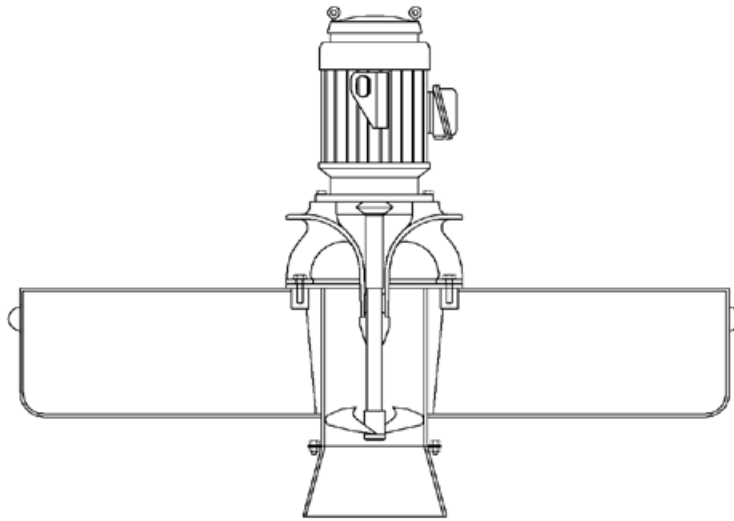
eVOQUA

WATER TECHNOLOGIES

AQUA-LATOR®  
SURFACE AERATORS

**COST-EFFECTIVE,  
HIGH OXYGEN TRANSFER  
EFFICIENT AERATION**





Aqua-Lator® Surface Aerator Cross Section



## Overview

The Aqua-Lator® floating mechanical aerator is used in a variety of wastewater treatment applications. Powerful pumping action transfers oxygen by breaking up the wastewater into a spray of particles, creating 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 result: Effective wastewater treatment.

The Aqua-Lator aerator represents over four decades of accumulated research and field testing in a broad range of municipal and industrial applications throughout the world. Evoqua's floating mechanical aerator combines outstanding efficiency and versatility in a rugged design. It provides excellent oxygen transfer, low operating costs, trouble-free performance and outstanding resistance to environmental extremes to which aerators are continually exposed.





The Aqua-Lator surface aerator was introduced in 1963 and has a reputation for providing decades of superior performance and reliability.

From the beginning, Aqua-Lator aerators have delivered excellent value for thousands of municipal and industrial wastewater operators. Driving this track record has been a consistent product philosophy of providing reliable performance, simplicity of operation and ease of maintenance.

Satisfied customers span the complete range of wastewater treatment operations, from large city municipal treatment plants to the smallest village plant; from pulp and paper mills, food and beverage processors and petrochemical plants to textile manufacturers. Industrial customers range from the top 500 corporations to small companies.

The Aqua-Lator® aerator offers exceptional versatility. Units may be easily added, repositioned

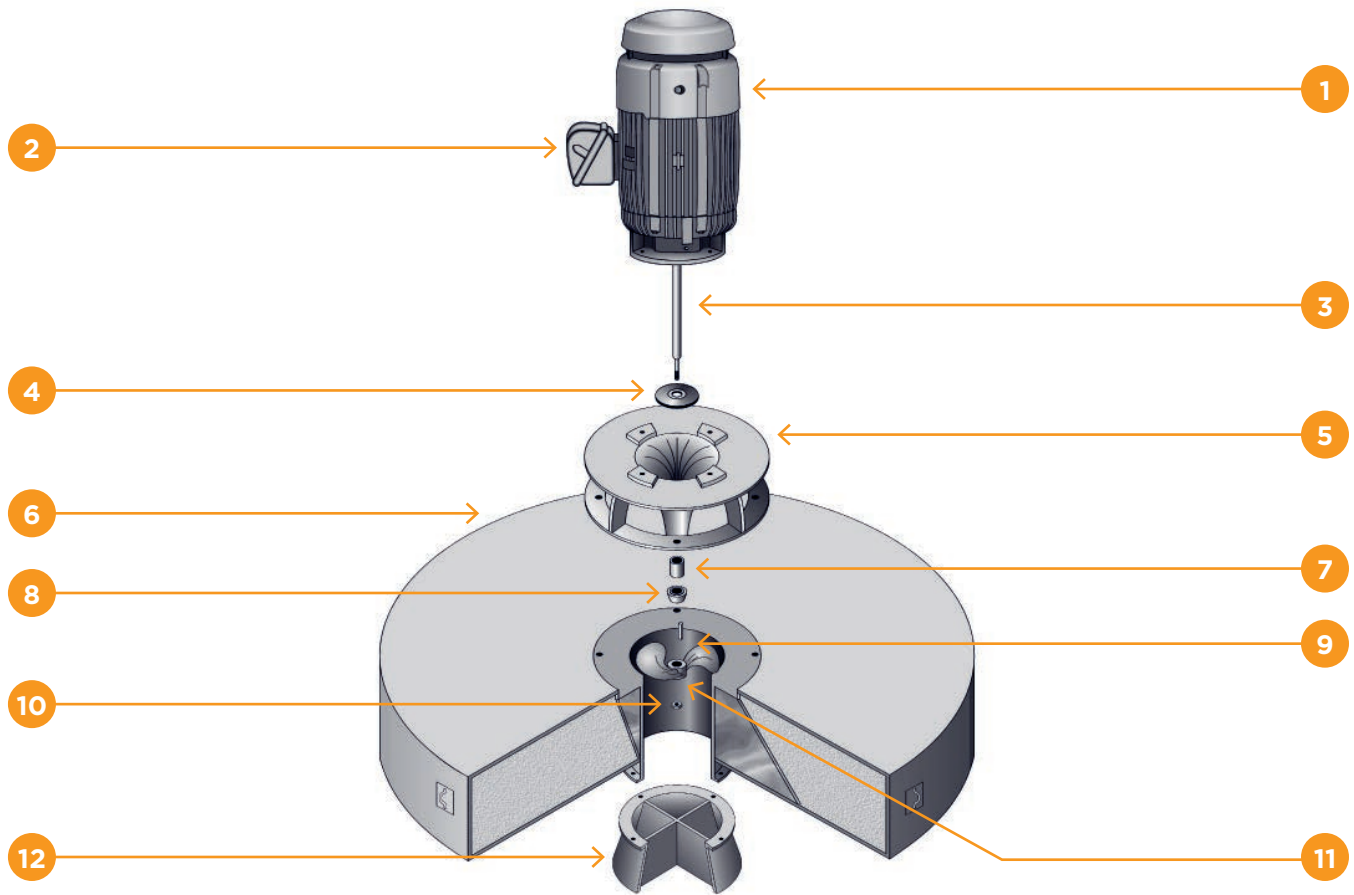
or upgraded to cope with changing conditions. As additional aeration capacity is required, new equipment can often be placed in operation the same day it is delivered. Because the Aqua-Lator aerator automatically adjusts to varying water levels, it ensures continuous, optimum operating efficiency for the many industrial users who operate waste treatment facilities by the batch method or other systems where the fluid level fluctuates.

Aqua-Lator aerators are used in a wide variety of installations— aerated lagoons, sequencing batch reactors (SBR), stabilization basins, activated sludge and aerobic digestion systems, as well as for stream aeration, reservoir stagnation prevention and upgrading existing ponds.

Evoqua offers a wide range of motor and horsepower options, materials of construction, and mooring accessories.

Our engineers can assist in the selection of the optimal aerator size, placement and mooring.

# Aqua-Lator® Surface Aerator Design Features



## 1 MOTOR

- Totally enclosed, fan-cooled
- Heavy gauge cast iron fan shield
- Class F insulation
- Service factor of 1.15
- 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

## 3 MOTOR SHAFT

- One piece continuous from upper bearings to the propeller
- 17-4 PH stainless steel in the 1150°F heat treated condition
- 135,000 PSI minimum yield strength
- 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

- Heavy duty casting
- Large integral webs for rigid stability and increased lateral strength
- Designed for minimum head loss
- 304 stainless steel, or cast nickel iron, 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 FLOAT

- Large one-piece float for superior performance
- Engineered to provide stability and better buoyancy
- Fiberglass reinforced polyester (FRP), or 14-gauge, 304 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

#### 7 DEFLECTOR BEARING

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

#### 8 DEBRIS DEFLECTOR

- Machined Delrin® for smooth fluid passage over the surface
- Attached with two recessed stainless steel set screws
- Double engagement provides an extra measure of preventing water migration up the shaft

#### 9 PROPELLER AND KEY

- Precision investment casting
- 316 stainless steel
- Dynamically balanced
- Keyed to mate to motor shaft in proper position
- Secured to shaft by stainless steel locking nut
- Simple installation or removal
- 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

- 304 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

- 304 stainless steel
- Hydraulically designed for proper loading on propeller
- Sufficiently sturdy to support assembled aerator on hard, flat surface
- (Optional) Anti-erosion assembly (see page 13)
- (Optional) Draft Tube





## Materials of Construction

Whatever your floating aerator requirements, there is an Aqua-Lator® aerator to meet your needs. These choices provide the most cost-effective design for municipal, pulp and paper, food processing, or other types of industrial wastewater treatment. You may choose one of the standard model series listed below, or another combination

of materials that best meet your specific needs. Whichever Aqua-Lator aerator you choose, be assured that you have selected the best aerator in the market. In terms of design, craftsmanship, performance, and versatility, it is the best investment that you can make.

	SF Series	CSF Series	SS Series	CS Series
<b>Motor Shaft</b>	One-piece 17-4 PH stainless steel	One-piece 17-4 PH stainless steel	One-piece 17-4 PH stainless steel	One-piece 17-4 PH stainless steel
<b>Propeller</b>	316 stainless steel, dynamically balanced	316 stainless steel, dynamically balanced	316 stainless steel, dynamically balanced	316 stainless steel, dynamically balanced
<b>Discharge Cone</b>	304 stainless steel	Cast nickel iron, monolithic casting, epoxy coated	304 stainless steel, monolithic casting	Cast nickel iron, monolithic casting, epoxy coated
<b>Volute</b>	304 stainless steel	304 stainless steel	304 stainless steel	304 stainless steel
<b>Intake Cone</b>	304 stainless steel	304 stainless steel	304 stainless steel	304 stainless steel
<b>Float</b>	14-gauge, 304 stainless steel shell, filled with closed-cell polyurethane foam	14-gauge, 304 stainless steel shell, filled with closed-cell polyurethane foam	Fiberglass-reinforced polyester shell, filled with closed-cell polyurethane foam	Fiberglass-reinforced polyester shell, filled with closed-cell polyurethane foam

### Special Materials

For applications which require special materials such as 304L, 316L, or others, please consult with our sales engineers.

# Typical Aqua-Lator® Surface Aerator Application Characteristics

## 1800 RPM (60 Hz)

Model	HP	IMP (ft)	DCM (ft)	DOD (ft)	Depth (ft)
211	2	9	28	95	7
311	3	18	40	145	8
511	5	20	45	150	8
711	7.5	21	50	160	9
1011	10	23	55	180	10
1511	15	25	64	214	10

## 1500 RPM (50 Hz)

Model	kW	IMP (m)	DCM (m)	DOD (m)	Depth (m)
211-M	1.5	2.7	8.5	29.0	2.1
311-M	2.2	5.5	12.2	44.2	2.4
511-M	3.7	6.1	13.7	45.7	2.4
711-M	5.5	6.4	15.2	48.8	2.7
1011-M	7.5	7.0	16.8	54.9	3.0
1511-M	11	7.6	19.5	65.2	3.0

## 1200 RPM (60 Hz)

Model	HP	IMP (ft)	DCM (ft)	DOD (ft)	Depth (ft)
2011	20	28	76	265	10
2511	25	30	85	295	10
3011	30	32	93	310	10
4011	40	33	107	330	11
5011	50	34	111	360	12
6011	60	35	122	395	12
7511	70	36	137	440	12

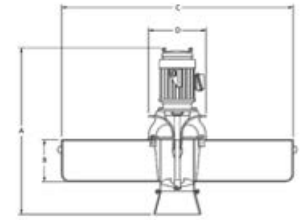
## 1000 RPM (50 Hz)

Model	kW	IMP (m)	DCM (m)	DOD (m)	Depth (m)
2011-M	15	8.5	23.2	80.8	3.0
2511-M	18.5	9.1	25.9	89.9	3.0
3011-M	22	9.8	28.3	94.5	3.0
4011-M	30	10.1	32.6	100.6	3.4
5011-M	37	10.4	33.8	109.7	3.7
6011-M	45	10.7	37.2	120.4	3.7
7511-M	55	11.0	41.8	134.1	3.7

**IMP**—impingement (white water) diameter in feet; **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

# Dimensions of Stainless Steel Float Series

## ORDERING INFORMATION/PN



1800 RPM (60 Hz)								Stainless Steel Discharge Cone	
Model	HP	A (in)	B (in)	C (in)	D (in)	Shaft (In)	Weight (lb)	Anti-Erosion	Standard
211	2	40.0	7.0	47.0	15.0	1.375	350	W3T67056	W3T26433
311	3	44.13	11.0	60.0	15.0	1.375	550	W3T67069	W3T67068
511	5	44.13	11.0	60.0	15.0	1.375	550	W3T66773	W3T66772
711	7	46.63	11.0	60.0	15.0	1.750	650	W3T67107	W3T67106
1011	10	51.69	12.0	71.0	19.0	1.750	975	W3T67211	W3T67210
1511	15	55.63	12.0	71.0	19.0	1.750	1000	W3T66785	W3T66784

1500 RPM (50 Hz)								Stainless Steel Discharge Cone	
Model	kW	A (mm)	B (mm)	C (mm)	D (mm)	Shaft (mm)	Weight (kg)	Anti-Erosion	Standard
211-M	1.5	1016	178	1194	381	34.9	160	Not an Option	
311-M	2.2	1121	279	1524	381	34.9	250	W3T518583	W3T518582
511-M	3.7	1121	279	1524	381	34.9	250	W3T518585	W3T518584
711-M	5.5	1184	279	1524	381	44.5	300	W3T518587	W3T518586
1011-M	7.5	1313	305	1803	483	44.5	450	W3T518589	W3T518588
1511-M	11	1413	305	1803	483	44.5	460	W3T518591	W3T518590

1200 RPM (60 Hz)								Stainless Steel Discharge Cone	
Model	HP	A (in)	B (in)	C (in)	D (in)	Shaft (In)	Weight (lb)	Anti-Erosion	Standard
2011	20	67.94	14.0	84.0	23.00	2.125	1,350	W3T66789	W3T66788
2511	25	68.82	14.0	84.0	23.00	2.125	1,400	W3T18989	W3T66804
3011-1	30	68.82	14.0	84.0	23.00	2.125	1,400	W3T66887	W3T28575
3011	30	86.94	16.0	96.0	27.75	2.245	1,900	W3T66985	W3T26217
4011	40	90.31	16.0	96.0	27.75	2.900	1,975	W3T66993	W3T66992
5011-1	50	90.31	16.0	96.0	27.75	2.900	2,050	W3T66752	W3T26319
5011	50	101.06	16.0	116.0	34.25	2.900	2,900	W3T66746	W3T66744
6011	60	102.81	16.0	116.0	34.25	2.900	3,100	W3T67013	W3T67012
7511	75	102.81	16.0	116.0	34.25	2.900	3,150	W3T66739	W3T26432

1000 RPM (50 Hz)								Stainless Steel Discharge Cone	
Model	kW	A (mm)	B (mm)	C (mm)	D (mm)	Shaft (mm)	Weight (kg)	Anti-Erosion	Standard
2011-M	15	1726	356	2134	584	54.0	620	W3T518593	W3T518592
2511-M	18.5	1748	356	2134	584	54.0	640	W3T518594	W3T132294
3011-1-M	19.5	1748	356	2134	584	54.0	640	W3T518596	W3T518595
3011-M	22	2208	406	2438	705	57.0	870	W3T518598	W3T518597
4011-M	30	2294	406	2438	705	73.7	900	W3T518600	W3T518599
5011-1-M	37	2294	406	2438	705	73.7	930	W3T518602	W3T518601
5011-M	37	2567	406	2946	870	73.7	1,320	W3T518604	W3T518603
6011-M	45	2611	406	2946	870	73.7	1,410	W3T518606	W3T518605
7511-M	55	2611	406	2946	870	73.7	1,430	W3T518608	W3T518607

Highlighted areas indicate dual-speed aerators; **Shaft**—shaft diameter; **Weight**—approximate shipping weight



# Dimensions of Fiberglass Float Series

## ORDERING INFORMATION/PN

1800 RPM (60 Hz)								Stainless Steel Discharge Cone		Carbon Steel Discharge Cone	
Model	HP	A (in)	B (in)	C (in)	D (in)	Shaft (in)	Weight (lb)	Anti-Erosion	Standard	Anti-Erosion	Standard
211	2	40.0	7.0	47.0	15.0	1.375	350	W3T67056	W3T26433	Not an option	
311	3	44.13	11.0	60.0	15.0	1.375	550	W3T67069	W3T67068	W3T67080	W3T67079
511	5	44.13	11.0	60.0	15.0	1.375	550	W3T66773	W3T66772	W3T66757	W3T66755
711	7	46.63	11.0	60.0	15.0	1.750	650	W3T67107	W3T67106	W3T67114	W3T67113
1011	10	51.69	12.0	71.0	19.0	1.750	925	W3T67211	W3T67210	W3T67067	W3T67066
1511	15	55.63	12.0	71.0	19.0	1.750	950	W3T66785	W3T66784	W3T66782	W3T66781

1500 RPM (50 Hz)								Stainless Steel Discharge Cone		Carbon Steel Discharge Cone	
Model	kW	A (m)	B (mm)	C (m)	D (mm)	Shaft (mm)	Weight (kg)	Anti-Erosion	Standard	Anti-Erosion	Standard
211-M	1.5	1.02	177.8	1.19	381.0	34.93	160	W3T518516	W3T518515	W3T518518	W3T518517
311-M	2.2	1.12	279.4	1.64	381.0	34.93	250	W3T518520	W3T518519	W3T518532	W3T518531
511-M	3.7	1.12	279.4	1.64	381.0	34.93	250	W3T518534	W3T518533	W3T518536	W3T518535
711-M	5.5	0.42	279.4	1.64	381.0	44.45	300	W3T518538	W3T518537	W3T518540	W3T518539
1011-M	7.5	1.31	304.8	1.82	482.6	44.45	420	W3T518542	W3T518541	W3T518543	W3T440239
1511-M	11	1.41	304.8	1.82	482.6	44.45	440	W3T518545	W3T518544	W3T518546	W3T424234

1200 RPM (60 Hz)								Stainless Steel Discharge Cone		Carbon Steel Discharge Cone	
Model	HP	A (in)	B (in)	C (in)	D (in)	Shaft (in)	Weight (lb)	Anti-Erosion	Standard	Anti-Erosion	Standard
2011	20	67.94	14.0	84.5	23.00	2.125	1,150	W3T66800	W3T66799	W3T66802	W3T66801
2511	25	68.81	14.0	84.5	23.00	2.125	1,200	W3T66805	W3T19881	W3T66806	W3T18988
3011-1	30	68.81	14.0	84.5	23.00	2.125	1,201	W3T66888	W3T19024	W3T66889	W3T66983
3011	30	86.94	16.5	96.0	27.75	2.245	1,900	W3T66990	W3T66989	W3T66991	W3T19023
4011	40	90.31	16.5	96.0	27.75	2.900	1,950	W3T66997	W3T66996	W3T66999	W3T66998
5011-1	50	90.31	16.5	96.0	27.75	2.900	2,000	W3T67002	W3T27745	W3T67003	W3T67004
5011	50	101.06	16.5	116.0	34.25	2.900	2,400	W3T67009	W3T67008	W3T67007	W3T67006
6011	60	102.81	16.5	116.0	34.25	2.900	2,800	W3T67026	W3T67025	W3T67027	W3T26779
7511	75	102.81	16.5	116.0	34.25	2.900	2,850	W3T67042	W3T67041	W3T67045	W3T67043

1000 RPM (50 Hz)								Stainless Steel Discharge Cone		Carbon Steel Discharge Cone	
Model	kW	A (m)	B (mm)	C (m)	D (mm)	Shaft (mm)	Weight (kg)	Anti-Erosion	Standard	Anti-Erosion	Standard
2011-M	15	1.73	355.6	2.15	584.2	53.98	530	W3T518547	W3T518548	W3T518549	W3T518550
2511-M	18.5	1.75	355.6	2.15	584.2	53.98	550	W3T518551	W3T518550	W3T518553	W3T518552
3011-1-M	22	1.75	355.6	2.15	584.2	53.98	550	W3T518555	W3T518554	W3T518557	W3T518556
3011-M	22	2.21	419.1	2.44	704.9	57.02	870	W3T518559	W3T518558	W3T518561	W3T518560
4011-M	30	2.29	419.1	2.44	704.9	73.66	890	W3T518563	W3T518562	W3T518565	W3T518564
5011-1-M	37	2.29	419.1	2.44	704.9	73.66	910	W3T518567	W3T518566	W3T518569	W3T518568
5011-M	37	2.57	419.1	2.95	870.0	73.66	1,090	W3T518571	W3T518570	W3T518573	W3T518572
6011-M	45	2.61	419.1	2.95	870.0	73.66	1,280	W3T518575	W3T518574	W3T518577	W3T518576
7511-M	55	2.61	419.1	2.95	870.0	73.66	1,300	W3T518579	W3T518578	W3T518581	W3T518580

Highlighted areas indicate dual-speed aerators; **Shaft**—shaft diameter; **Weight**—approximate shipping weight

# Electrical Power Cable Selection

<b>230 VOLTS</b>		<b>AWG Cable Size</b>								
<b>HP</b>	<b>AMPS</b>	<b>12-4</b>	<b>10-4</b>	<b>8-4</b>	<b>6-4</b>	<b>4-4</b>	<b>2-4</b>	<b>0-4</b>	<b>00-4</b>	<b>000-4</b>
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

<b>460 VOLTS</b>		<b>AWG Cable Size</b>								
<b>HP</b>	<b>AMPS</b>	<b>12-4</b>	<b>10-4</b>	<b>8-4</b>	<b>6-4</b>	<b>4-4</b>	<b>2-4</b>	<b>0-4</b>	<b>00-4</b>	<b>000-4</b>
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

<b>575 VOLTS</b>		<b>AWG Cable Size</b>								
<b>HP</b>	<b>AMPS</b>	<b>12-4</b>	<b>10-4</b>	<b>8-4</b>	<b>6-4</b>	<b>4-4</b>	<b>2-4</b>	<b>0-4</b>	<b>00-4</b>	<b>000-4</b>
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

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

# Mooring Accessories



## MOORING RING

Mooring rings, manufactured of 304 stainless steel, are used to connect aerators together when the aerators are not moored to shore, posts, or concrete blocks.



## EXTENSION SPRING

In applications where there are small amounts of variation in the water level, stainless steel extension springs are used. The springs are installed at the mooring points to allow approximately 10 inches of expansion for each spring.



## MOORING CABLE

Mooring cables are designated by the number of strands in the cable and the number of wires in each strand. In the cable that we specify, 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

- **HP:** Aerator horsepower
- **DIA:** Cable diameter in inches
- **WGHT:** Approximate weight per 100 feet in pounds
- **STGH:** Nominal breaking strength in pounds



## SHACKLE

Heavy-duty shackles, manufactured of 304 stainless steel, are available in 3/16", 1/4", and 3/8" for use with the corresponding diameter mooring cable. The shackle is attached to the thimble. This allows for easy detachment of the aerator from the mooring line.



## THIMBLE

Heavy-duty thimbles, manufactured of 316 stainless steel, are available in 3/16", 1/4", and 3/8" for use with the corresponding diameter mooring cable.



## 3/8" AND LARGER MOORING HARDWARE ARRANGEMENT

Mooring consists of 1 thimble and 2 wire rope clips on each end of the mooring line. Install the U-bolt section of the wire rope clips on the "dead" or short end of the cable, and the saddle on the "live" or long end of the cable. Apply the second clip as near the thimble as possible.



## WIRE ROPE CLIP

Heavy-duty U-bolt clips, manufactured of 316 stainless steel, are available in 3/16", 1/4", and 3/8" for use with the corresponding diameter mooring cable.



## SNAP HOOK

Heavy-duty snap hooks, manufactured of 304 stainless steel, are available in 3/16", 1/4", and 3/8" for use with the corresponding diameter mooring cable. The snap hook is attached to the thimble. This allows for simple detachment of the aerator from the mooring line for scheduled maintenance or other services.



## 3/16"-1/4" MOORING HARDWARE ARRANGEMENT

For up to 30 HP, mooring consists of 1 thimble and 1 clip on each end of the mooring line. Above 30 HP, use 1 thimble and 2 clips on each end.

# Aerator Accessories



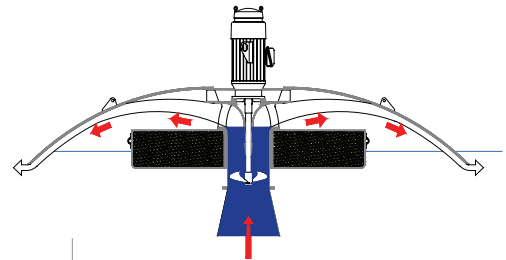
## ANTI-EROSION ASSEMBLY

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 basins. These assemblies are also used to prevent disturbance of the sludge blanket in facultative lagoon systems.



## LOW TRAJECTORY DIFFUSER

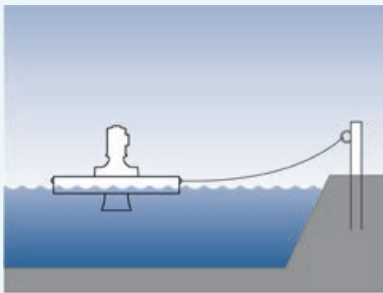
The low trajectory diffuser (LTD) ring is bolted to the top of the discharge cone to lower the aerator spray pattern. The LTD assembly reduces windblown spray and misting and reduces icing in colder climates.



## MIST ELIMINATOR™ SPRAY CONTAINMENT DOME

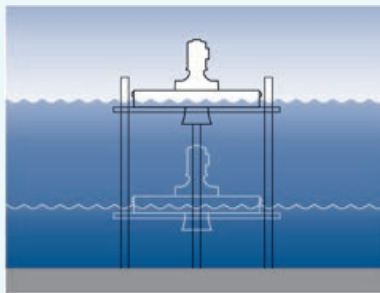
Used to control and contain the mist and spray generated by the pumping action of the aerator. The spray dome controls the water discharge and directs the water back into the bulk liquid, minimizing mist and retaining heat.

## TYPICAL MOORING ARRANGEMENTS



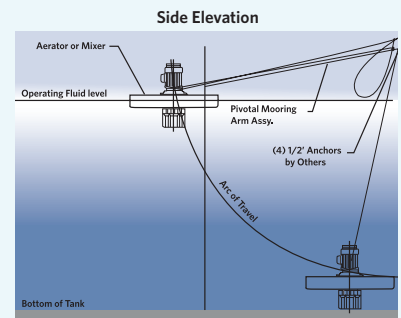
### Shore Mooring

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 Arm

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



# Mist Eliminator™ Spray Containment Dome for the Aqua-Lator® High Speed Surface Aerator

## SPRAY CONTAINMENT DOME

The Mist Eliminator™ spray containment dome is an optional accessory for the Aqua-Lator® high speed surface aerators. The dome controls the water flow from the powerful pumping action of the aerator at its discharge, redirecting it into the bulk liquid, thus minimizing mist and spray.

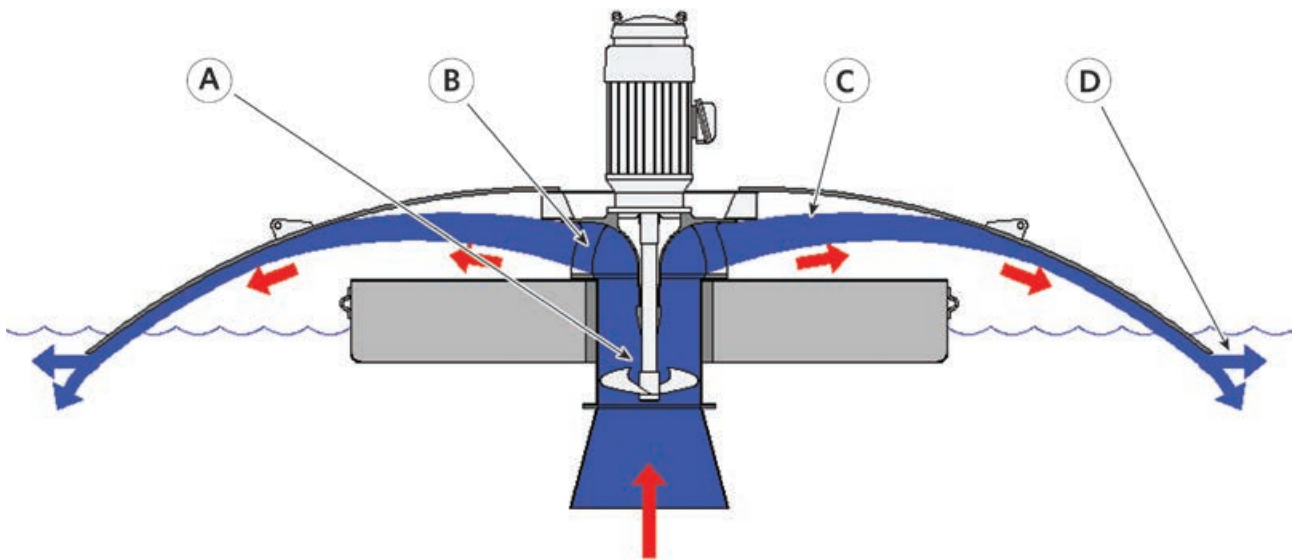
The Mist Eliminator dome can also be used where cold weather might otherwise restrict the use of floating aerators. The dome acts to retain heat and enables the aerators to continue operating during periods of extreme low temperatures.

The Mist Eliminator domes shown below are located at a municipal wastewater treatment plant in the northeast United States. Under windy conditions, the plant would receive complaints of drifting spray and odors from nearby residents. With the addition of the Mist Eliminator spray containment domes, complaints have ceased and the plant continues to meet operational requirements.

## Features

The Mist Eliminator dome can also be used in installations where cold weather conditions might otherwise restrict the use of floating aerators. The domed cover acts to retain heat and enable the aerators to continue operating during periods of lower temperatures.

- In cold weather conditions spray containment to minimize misting
- Fits all sizes of Aqua-Lator aerators
- Durable, rugged construction
- Stainless steel mooring ears
- Protective coating
- Installs easily
- Minimal maintenance



- A** Wastewater is pumped into and through the volute.
- B** As wastewater enters and then exits the discharge cone it breaks up into many small particles, creating an enlarged surface area for oxygen transfer.

- C** The spray discharge is contained within the inside of the Mist Eliminator™ dome, minimizing mist and better retaining the heat of the wastewater.
- D** Mixing and dispersion of the oxygen-enriched liquid occurs.

# Electrical Accessories



## STRAIN RELIEF GRIP

Strain relief grips are designed to prevent tension from being transmitted to joints and terminals on the power cable, which could result in pullout. In most applications, a strain relief is stronger than the cable itself and gives much greater security than the use of a compression fitting alone. Strain relief grips are available in sizes to match the specific cable used.



## ELECTRICAL CABLE TIE

These cable ties are manufactured of heavyduty weather-resistant nylon. They are available in a variety of sizes to accommodate the cable sizes used on the aerator. The minimum loop tensile strength is 120 pounds in accordance with paragraph 3.5.1 of MIL-S-23190E.



## POWER CABLE

Electrical power cable consists of flexible stranded copper conductors with light weight, high dielectric strength insulation. Rated at 105 degrees centigrade, it has superb flexibility, superior abrasion resistance, ozone, chemical, oil and water-resistance. The power cable is manufactured with non-wicking polypropylene fillers and is stamped "water-resistant."



## POWER CABLE SUPPORT BRACKET

These cable support brackets are attached to the mooring ear on fiberglass floats. For stainless steel floats, a bracket is welded to the float. The power cable is clamped to these brackets to protect the cable from abrasion.



## COMPRESSION FITTING

Compression fittings are used to seal the power cable into the motor junction box. They are available in sizes to match the specific cable used.



## QUICK DISCONNECT PLUG

Fully insulated and abuse-resistant, heavyduty housings. A series of neoprene glands are supplied with the plugs and connectors to ensure a reliable seal at the point of cable entry. Gasketed locking rings and covers prevent contamination by dust, water, etc.

## Specifications And Dimensions

The specifications and dimensions in this catalog are intended to be representative and illustrative, of the size, function and appearance of our products. The descriptions, data, and charts are not intended to be engineering specifications universally applicable to specific design problems. Since particular designs, installations, and plants call for specific requirements, we recommend that customers consult Evoqua for exact data and recommendations that may be required for special applications.



### CONTROL PANEL

Control panels, with NEMA® compliant enclosures are available for manual, semi-automatic, or completely automatic operation. A standard control panel consists of across-the-line starters, pushbutton start-stop switches, and a main disconnect safety lever switch. Other special enclosures which require such items as timers, pilot lights, alarm horns, or elapsed time meters, are available upon request.



### POWER CABLE FLOAT

These power cable floats will hold the power cable at the water surface to avoid the possibility of cable dragging on the bottom and getting injected into the aerator.



### QUICK DISCONNECT RECEPTACLE

Fully insulated and abuse-resistant, heavy-duty nylon housings. All metal parts are made of corrosion-resistant materials, color coded by voltage, in accordance with I.E.C. standards. This makes identification of matching devices quick and easy. The selfclosing cover is keyed to normally seat in a position that provides a weatherproof seal, and simply locking the cover makes it watertight.



### MOTOR OPTIONS

In addition to all the standard features on the Aqua-Lator® aerator motors, the following additional features are available:

- Premium efficient
- Space Heaters
- Dual speed
- Thermal overload protection
- Explosion-proof

TRANSFORMING  
**WATER**  
— ENRICHING —  
LIFE



4669 Shepherd Trail, Rockford, IL 61103

**+1-866-926-8420 (toll-free)**    **+1-815-623-2111 (toll)**    [evoqua.com](http://evoqua.com)

Aqua-Lator and Mist Eliminator are trademarks of Evoqua, its subsidiaries or affiliates, in some countries. NEMA is a trademark of the National Electrical Manufacturers Association. Delrin is a trademark of E. I. Du Pont de Nemours and Company.

All information presented herein is believed reliable and in accordance with accepted engineering practices. Evoqua makes no warranties as to the completeness of this information. Users are responsible for evaluating individual product suitability for specific applications. Evoqua assumes no liability whatsoever for any special, indirect or consequential damages arising from the sale, resale or misuse of its products.

© 2021 Evoqua Water Technologies LLC    Subject to change without notice    BC-AQUALATOR-BR-0321