



USFilter
Taking care of the world's water.

AERATOR

PRODUCTS

AQUA-LATOR®

HIGH SPEED

SURFACE

AERATORS

OVERVIEW

THE PRODUCT



The Aqua-Lator® aerator is a high speed floating mechanical aerator for wastewater treatment. 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 years of accumulated research and field testing in a broad range of municipal and industrial applications throughout the world. No other floating mechanical aerator is as ruggedly built, more efficient, or as versatile as the Aqua-Lator. It provides excellent oxygen transfer, low operating costs, trouble-free performance and unequaled resistance to the environmental extremes to which aerators are continually exposed.

THE FIRST

The Aqua-Lator aerator was the first high speed floating aerator. Introduced in 1963, it created imitators, but none who

could ever duplicate its superior performance and reliability.



EXCELLENT VALUE

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

Satisfied Aqua-Lator 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.



EXCEPTIONAL VERSATILITY

The Aqua-Lator 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 is self-adjusting 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.

BROAD RANGE OF APPLICATIONS

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.

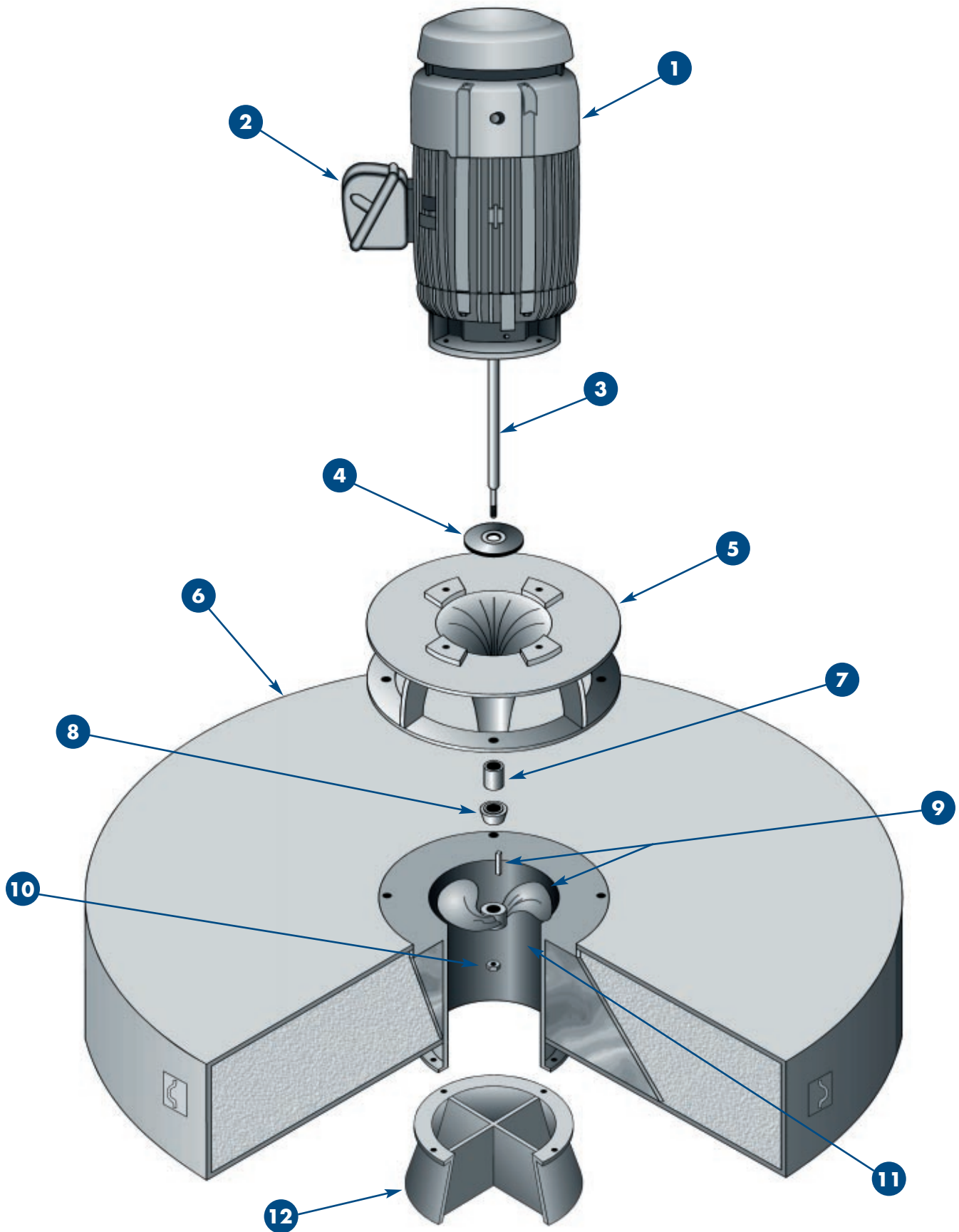
RESOURCES AND CAPABILITIES

USFilter's Aerator Products is located in a 40,000 square foot facility on 13 acres in Roscoe, Illinois. Test facilities include a 100,000 gallon circular tank and a 500,000 gallon square basin. These tanks are used for all vibration testing, performance evaluation and research and development programs. Aerator Products' engineers can assist in the selection of the

optimal aerator size, placement and mooring.

With the full resources of USFilter to support it, Aerator Products offers the widest range of horsepower, materials of construction, motor options and electrical and mooring accessories.

AQUA-LATOR DESIGN FEATURES



1 MOTOR

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

- Massive monolithic casting, heavier than competition
- 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

- Largest one-piece float available
- 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 (see page 13)

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 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

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

CSF SERIES

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

SS SERIES

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

CS SERIES

- Motor Shaft – One-piece 17-4 PH stainless steel
- Propeller – 316 stainless steel, dynamically balanced
- Discharge Cone – Cast nickel iron, monolithic casting, epoxy coated
- Volute – 304 stainless steel
- Intake Cone – 304 stainless steel
- Float – 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.

AQUA-LATOR MODELS

1800 RPM

MODEL	HP	RPM	IMP	DCM	DOD	DEPTH
211	2	1800	9	28	95	7
311	3	1800	18	40	145	8
511	5	1800	20	45	150	8
511 DS	5/2.2	1800/1200		31	103	8
711	7.5	1800	21	50	160	9
711 DS	7.5/3.3	1800/1200		34	111	9
1011	10	1800	23	55	180	10
1011 DS	10/4.4	1800/1200		35	97	10
1511	15	1800	25	64	214	10
1511 DS	15/6.6	1800/1200		42	137	10

1200 RPM

MODEL	HP	RPM	IMP	DCM	DOD	DEPTH
2011	20	1200	28	76	265	10
2011 DS	20/11.2	1200/900		62	201	10
2511	25	1200	30	85	295	10
2511 DS	25/14.0	1200/900		70	222	10
3011	30	1200	32	93	310	10
3011 DS	30/16.8	1200/900		75	229	10
4011	40	1200	33	107	330	11
4011 DS	40/22.5	1200/900		86	275	11
5011	50	1200	34	111	360	12
5011 DS	50/28.1	1200/900		89	278	12
6011	60	1200	35	122	395	12
6011 DS	60/33.7	1200/900		96	295	12
7511	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
10011	100	900	40	155	400	15
10011 DS	100/69.4	900/750		120	285	15
12511	125	900	43	160	450	15
15011	150	900	45	165	495	15

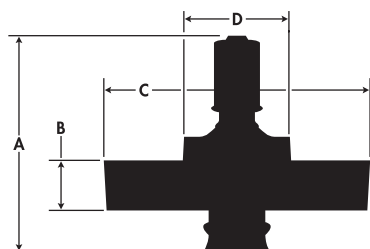
NOTES

- Highlighted areas indicate dual-speed aerators
- 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 – SF AND CSF

1800 RPM

STAINLESS STEEL FLOATS



MODEL	HP	RPM	A	B	C	D	SHAFT	WGHT
211	2	1800	40.00	10.5	54.0	15.00	1.375	350
311	3	1800	44.13	11.0	60.0	15.00	1.375	550
511	5	1800	44.13	11.0	60.0	15.00	1.375	550
511 DS	5/2.2	1800/1200	44.13	11.0	60.0	15.00	1.375	550
711	7.5	1800	46.63	11.0	60.0	15.00	1.750	650
711 DS	7.5/3.3	1800/1200	49.13	11.0	60.0	15.00	1.750	650
1011	10	1800	51.69	12.0	71.0	19.00	1.750	975
1011 DS	10/4.4	1800/1200	55.63	12.0	71.0	19.00	1.750	975
1511	15	1800	55.63	12.0	71.0	19.00	1.750	1,000
1511 DS	15/6.6	1800/1200	59.56	12.0	71.0	19.00	1.750	1,000

1200 RPM

STAINLESS STEEL FLOATS

MODEL	HP	RPM	A	B	C	D	SHAFT	WGHT
2011	20	1200	67.94	14.0	84.0	23.00	2.125	1,350
2011 DS	20/11.2	1200/900	68.82	14.0	84.0	23.00	2.125	1,350
2511	25	1200	68.82	14.0	84.0	23.00	2.125	1,400
2511 DS	25/14.0	1200/900	69.70	14.0	96.0	23.00	2.125	1,400
3011	30	1200	86.94	16.0	96.0	27.75	2.245	1,900
3011 DS	30/16.8	1200/900	90.31	16.0	96.0	27.75	2.245	1,900
4011	40	1200	90.31	16.0	96.0	27.75	2.900	1,975
4011 DS	40/22.5	1200/900	93.70	16.0	96.0	27.75	2.900	1,975
5011 R	50	1200	90.31	16.0	96.0	27.75	2.900	2,050
5011 RDS	50/28.1	1200/900	93.70	16.0	96.0	27.75	2.900	2,100
5011	50	1200	101.06	16.0	116.0	34.25	2.900	2,900
5011 DS	50/28.1	1200/900	102.81	17.0	116.0	34.25	2.900	2,975
6011	60	1200	102.81	16.0	116.0	34.25	2.900	3,100
6011 DS	60/33.7	1200/900	102.81	17.0	116.0	34.25	2.900	3,200
7511	75	1200	102.81	16.0	116.0	34.25	2.900	3,150
7511 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	WGHT
10011	100	900	120.00	17.0	131.0	45.00	3.930	4,700
10011 DS	100/69.4	900/750	124.00	19.0	131.0	45.00	3.930	4,950
12511	125	900	126.00	19.0	131.0	45.00	3.930	5,270
15011	150	900	128.00	19.0	131.0	45.00	3.930	5,400

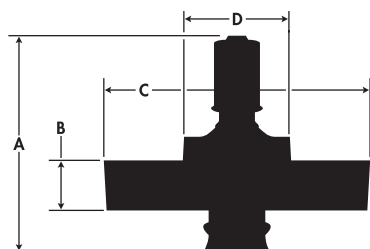
NOTES

- Highlighted areas indicate dual-speed aerators
- All dimensions are in inches
- SHAFT – Shaft Diameter
- WGHT – Approximate shipping weight
- Weight is in pounds

DIMENSIONS OF FIBERGLASS FLOAT SERIES – SS AND CS

1800 RPM

FIBERGLASS FLOATS



MODEL	HP	RPM	A	B	C	D	SHAFT	WGHT
211	2	1800	40.00	10.5	54.0	15.00	1.375	350
311	3	1800	44.13	11.0	64.5	15.00	1.375	550
511	5	1800	44.13	11.0	64.5	15.00	1.375	550
511 DS	5/2.2	1800/1200	44.13	11.0	64.5	15.00	1.375	550
711	7.5	1800	46.63	11.0	64.5	15.00	1.750	650
711 DS	7.5/3.3	1800/1200	49.13	11.0	64.5	15.00	1.750	650
1011	10	1800	51.69	12.0	71.5	19.00	1.750	925
1011 DS	10/4.4	1800/1200	55.63	12.0	71.5	19.00	1.750	925
1511	15	1800	55.63	12.0	71.5	19.00	1.750	950
1511 DS	15/6.6	1800/1200	59.56	12.0	71.5	19.00	1.750	950

1200 RPM

FIBERGLASS FLOATS

MODEL	HP	RPM	A	B	C	D	SHAFT	WGHT
2011	20	1200	67.94	14.0	84.5	23.00	2.125	1,150
2011 DS	20/11.2	1200/900	68.82	14.0	84.5	23.00	2.125	1,150
2511	25	1200	68.82	14.0	84.5	23.00	2.125	1,200
2511 DS	25/14.0	1200/900	69.70	14.0	84.5	23.00	2.125	1,200
3011	30	1200	86.94	16.5	96.0	27.75	2.245	1,900
3011 DS	30/16.8	1200/900	90.31	16.5	96.0	27.75	2.245	1,900
4011	40	1200	90.31	16.5	96.0	27.75	2.900	1,950
4011 DS	40/22.5	1200/900	93.70	16.5	96.0	27.75	2.900	1,950
5011 R	50	1200	90.31	16.5	96.0	27.75	2.900	2,000
5011 RDS	50/28.1	1200/900	93.70	16.5	96.0	27.75	2.900	2,050
5011	50	1200	101.06	16.5	116.0	34.25	2.900	2,400
5011 DS	50/28.1	1200/900	102.81	16.5	116.0	34.25	2.900	2,500
6011	60	1200	102.81	16.5	116.0	34.25	2.900	2,800
6011 DS	60/33.7	1200/900	102.81	16.5	116.0	34.25	2.900	2,900
7511	75	1200	102.81	16.5	116.0	34.25	2.900	2,850
7511 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	WGHT
10011	100	900	120.00	20.0	116.0	45.00	3.930	4,450
10011 DS	100/69.4	900/750	124.00	23.0	116.0	45.00	3.930	4,650

NOTES

- Highlighted areas indicate dual-speed aerators
- All dimensions are in inches
- SHAFT – Shaft Diameter
- WGHT – Approximate shipping weight
- Weight is in pounds

When it comes to investments, you look for the most efficient use of your money. When you invest in the Aqua-Lator ES, "Energy Saver" aerator, you get it. Even though the Aqua-Lator ES aerators cost more, the initial purchase price premium can be justified based on energy cost savings. With the cost of electricity escalating, your investment can be recovered in a surprisingly short period, and continues to pay a return thereafter. Once the initial price premium has been recovered, all savings translate directly into profit.

The basis for this justification depends on the user's situation. Factors such as running hours, cost of electricity, payback period, tax rate, cost of capital, and service life, affect the premium price justification, and vary with the individual user. A very simple energy savings calculation can be made to estimate the yearly savings with an Aqua-Lator ES aerator.

SIMPLE ENERGY SAVINGS CALCULATION

ENERGY SAVINGS FORMULA

$$\text{Yearly Savings} = \text{HP} \times .746 \times L \times C \times N \times \left[\frac{1}{\text{STD}} - \frac{1}{\text{ES}} \right]$$

Where: HP = Horsepower
L = Percentage of full load operation
C = energy cost in dollars per kilowatt hour
N = Annual hours of operation
STD = Standard motor efficiency
ES = Aqua-Lator® ES efficiency

This simple payback method gives the number of years required to recover the differential investment for higher efficiency motors. To determine the payback period, the premium for the higher efficiency aerator is divided by the annual savings. First the annual savings must be determined using the formula to the left.

In the example below, the yearly savings is \$1,470.58. In other words, if you wanted a two-year payback on your

investment, you could afford to spend \$2,941.16 more for the Aqua-Lator ES series than the standard efficient aerator.

Remember, once the initial price premium has been recovered, all savings translate directly into profit.

For a more detailed evaluation of energy cost savings, including present value analysis, please contact one of our sales engineers.

ENERGY SAVINGS EXAMPLE

Assume a 75HP Aqua-Lator is going to operate at full load, 7 days a week for 48 weeks, or a total of 8064 hours per year. Also, assume the cost of electricity is \$.086 per kilowatt hour. The savings, using the Aqua-Lator ES aerator with a motor efficiency of 95%, compared to the industry standard of 91.7%, is calculated as follows:

$$\begin{aligned} \text{Yearly Savings} &= \\ \text{HP} \times .746 \times L \times C \times N \times \left[\frac{1}{\text{STD}} - \frac{1}{\text{ES}} \right] \\ 75 \times .746 \times 100\% \times \$.086 \times 8064 \times \left[\frac{1}{.917} - \frac{1}{.950} \right] \\ &= \$1,470.58 \end{aligned}$$

ELECTRICAL POWER CABLE SELECTION

230 VOLTS

HP	AMPS	AWG CABLE SIZE								
		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 VOLTS

HP	AMPS	AWG CABLE SIZE								
		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 VOLTS

HP	AMPS	AWG CABLE SIZE								
		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

MOORING ACCESSORIES



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.



THIMBLE

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



WIRE ROPE CLIP

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



SHACKLE

Heavy-duty shackles, manufactured of 304 stainless steel, are available in $\frac{3}{16}$ ", $\frac{1}{4}$ ", and $\frac{3}{8}$ " 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.



SNAP HOOK

Heavy-duty snap hooks, manufactured of 304 stainless steel, are available in $\frac{3}{16}$ ", $\frac{1}{4}$ ", and $\frac{3}{8}$ " 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.



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



$\frac{3}{16}$ " - $\frac{1}{4}$ " 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.

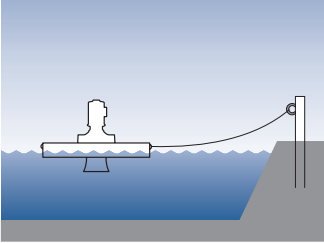


$\frac{3}{8}$ " AND LARGER MOORING

HARDWARE ARRANGEMENT

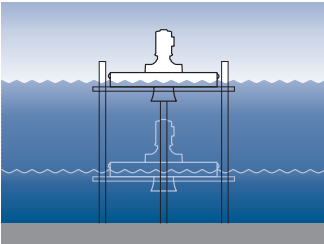
Mooring consists of 1 thimble and 2 wire rope clips on each end of the mooring line. Install the U-bolt section of the wire rope clips on the "dead" or short end of the cable, and the saddle on the "live" or long end of the cable. Apply the second clip as near the thimble as possible.

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. A triangular frame with three rings is attached to the float. These rings, which are removable U-bolts, fit around three posts, permitting the unit to slide up and down the posts with varying water levels.



LOW TRAJECTORY DIFFUSER

This fiberglass ring is bolted to the top of the discharge cone to lower the aerator spray pattern. In colder climates, this will help reduce the windblown spray and minimize icing.



ANTI-ICE DIFFUSER

This cast aluminum ring is bolted to the top of the discharge cone to minimize ice build-up. 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 which contains the automatic thermostat. The anti-ice diffuser requires its own 2-conductor electrical power cable for operation.



ANTI-EROSION ASSEMBLY

The anti-erosion assembly consists of a standard intake cone with an integral plate, sized for that particular horsepower. These anti-erosion assemblies are available in stainless steel or epoxy coated steel. This 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.



DRAFT TUBE

The draft tube is simply an extension of the intake cone to allow for a deeper intake of water in specific customer applications to promote complete oxygen dispersion and solids suspension. Draft tubes are available in stainless steel or epoxy-coated steel. Deep basins, in which the depth is more than 1.5 times the length of the shortest wall, may require anti-vortex precautions when draft tubes are used.

ELECTRICAL ACCESSORIES



POWER CABLE

Electrical power cable consists of flexible stranded copper conductors with light weight, high dielectric strength insulation. Rated 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."



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, heavy-duty 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.



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 self-closing cover is keyed to normally seat in a position that provides a weatherproof seal, and simply locking the cover makes it watertight.



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.



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.



ELECTRICAL CABLE TIE

These cable ties are manufactured of heavy-duty 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



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 pull-out. 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 ACCESSORIES



CONTROL PANEL

Control panels, with NEMA 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.



MOTOR OPTIONS

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

- Dual-speed
- Aqua-Lator ES “Energy Saver”
- Space heaters
- Thermal overload protection
- Explosion-proof
- Special OSHA colors

SPECIAL NOTES

SPECIFICATIONS AND DIMENSIONS

The specifications and dimensions in this catalog are intended to be representative and illustrative, of the size, function and appearance of USFilter 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 USFilter for exact data and recommendations that may be required for special applications.

WARNING

The Aqua-Lator has a very high velocity flow directly beneath the aerator, which may cause damage to the basin bottoms or walls, creating leaking potential and/or ground water contamination. USFilter recommends the use of a concrete pad or other durable material that is known to be resistant to the wastewater, to be

placed on the basin bottom directly beneath the aerator. In addition, precautions should be taken to protect the basin walls. USFilter assumes no liability for any damages to the basin bottoms or walls or any injuries resulting from this application.

DANGER

The Aqua-Lator was not designed, nor intended for workers to service the aerator by standing on the float. Failure to keep off the aerator may result in

injuries and/or drowning. USFilter does not recommend standing on any size aerator, and assumes no liability for any injuries or death resulting therefrom.

THE BEST CHOICE



Since establishing a leadership position in the high speed floating mechanical aerator market in 1963, the Aqua-Lator has delivered excellent value to thousands of wastewater treatment operators. Going forward, the Aqua-Lator will continue to deliver reliable performance, simplicity of operation and ease of maintenance. Its exceptional versatility and usage in a wide range of wastewater applications deserves consideration from every wastewater professional. Aqua-Lator Aerators, the best choice.

The same commitments to reliable performance, product quality and customer responsiveness support all Aqua-Lator products.

- **AQUA-LATOR AERATORS**
- **AQUA-LATOR DDM MIXERS**
- **AQUA-LATOR FOUNTAIN AERATORS**
- **AQUA-LATOR FLOATING SPRAY COOLERS**

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