

## TRITON<sub>2</sub> ASPIRATOR SPECIFICATIONS

**PUMPING CAPACITIES:** The aerator shall be a submerged, horizontally mixing aspirator. The pumping capacity of the aerator shall be sufficient to influence \_\_\_\_\_ cubic feet or \_\_\_\_\_ cubic meters of water.

**FLOAT:** The float shall be made of seamless, one piece high density polyethylene plastic, filled with high density closed cell polyurethane foam. The float shall be capable of providing full floatation if the shell is punctured or cracked. Metal floats or those with an internal void for additional ballast are not acceptable.



**IMPELLER:** The impeller shall be constructed of 420 Valox thermal plastic material molded by the injection molding process. The impeller shall be connected to the motor by a type 304 stainless steel bolt, extending through the impeller and sleeve. Flexible shaft couplings are not acceptable.

**MOTOR:** The motor shall be a \_\_\_\_\_ HP, \_\_\_\_\_ Volt, \_\_\_\_\_ Phase, 60/50 Hz submersible motor operating at 1725 RPM. 50 Hz motors shall operate at 1425 RPM. High speed motors (i.e. 2000+ RPM's) are not acceptable. The service factor shall be 1.15. The motor shall operate in a reservoir of Otterbine oil for continuous lubrication of bearings and for efficient transfer of heat through the motor housing wall. Top mounted motors and water lubricated motors are not acceptable. The rotor shall be dynamically balanced. The winding (stator) wires shall be covered with class F rated insulation designed for complete immersion in oil. The motor shall be attached to a Valox thermoplastic upper plate. This plate will house the bearings and upper motor seals (internal and external). A tube shall feed the oil for the bearings. The motor shall be protected against oil and water leakage by a combination of rotary seals, stationary seals, and molded rubber "O" rings. The motor shall be serviceable.

**MOTOR HOUSING:** The external motor housing shall be a canister formed from deep drawn 316 stainless steel tube welded with type 308 stainless steel weld. The frame shall minimize vibration of the unit and allow the angle of discharge to be changed from 20 degrees off horizontal either up or down. Where necessary, the frame shall incorporate two concrete weights to maintain stability of the aerator. Bottom barrier component of the support frame shall be constructed of 1/4 inch or .64cm polyethylene.

**SUPPORT FRAME:** The support frame for the aerator shall be constructed of type 304 stainless steel tube welded with type 308 type stainless steel weld. The frame shall minimize vibration of the unit and allow the angle of discharge to be changed from 20 degrees off horizontal either up or down. Where necessary, the frame shall incorporate two concrete weights to maintain stability of aerator. Bottom barrier component of support frame shall be constructed of 1/4 inch or .64 cm polyethylene.

**SCREEN:** The debris screen shall be constructed shall be constructed of 1/2 inch or 1 cm nylon mesh.

**ASPIRATION TUBE** - The aspiration tube shall be constructed of 1/2 inch (1 cm) diameter by 50' or 15 meters long black polyethylene. Attached to the tube shall be a 5" x 3.5" or 13 cm x 9 cm float. The float shall be black styrene and shall incorporate a muffler.

**MOORING CABLE LEADS** - The mooring or anchor cable leads shall be of 1/8 inch or .32 cm diameter by 4' or 1 meter long, type 300 series stainless steel wire rope.

**FASTENERS:** All fasteners are to be type 304 or 316 stainless steel.

**ELECTRICAL CONNECTORS:** The electrical connectors shall consist of a receptacle and a plug constructed of nonconducting polymers. The system shall create a vacuum seal when connected and have a threaded nut system as a backup. The plug shall have a keyway and be molded into the top plate. The connector system shall be ETL and UL approved.

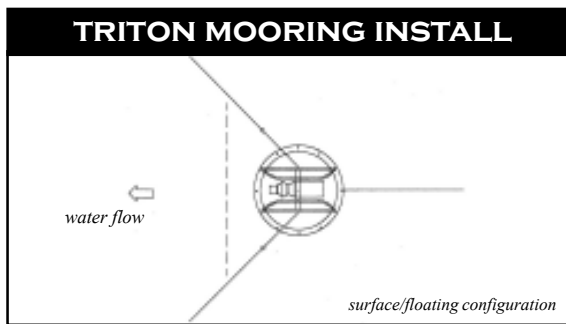
**UNDERWATER POWER CABLE:** The power cable shall be type SOOW specifically designed for underwater use. The conductors shall be flexible, bunch stranded bare copper AWG 12, 10, or 8 triple insulated to resist moisture, cracking, and softening. The outer jacket of the cable shall be a black CPE material. All underwater connections shall be vulcanized. Power cable shall be able to be furnished in un-spliced lengths up to 1000' or 305 meters if necessary.

**POWER CONTROL CENTER:** The electrical control components shall be mounted in a NEMA 3R enclosure with an externally mounted disconnect switch and a HAND - OFF - AUTO selector switch. The electrical system for units operating on 115, 208-230 volt, single or three phase, shall include a circuit breaker and a GFCI (ground fault circuit interrupter). To operate the GFCI on 208-230 volt systems a grounded neutral must be present or an optional control transformer may be supplied. The electrical system for units operating on 380 50 Hz and 460 volt 60 Hz shall include fuses. Fuses, if used, shall be dual-element type, mounted in three pole fuse blocks, with spring reinforced clips. For all units the motor starter shall be a combination magnetic full-voltage non-reversing type, 600 volts maximum, with bimetallic, ambient compensated overload relays. The electrical system shall include a three-pole lightning arrester, rated for a maximum of 60,000 amperes discharge. The system shall include a 24-hour timer.

**TESTING:** The aerator system shall be safety tested and approved as a package (unit, cable and power control center). Separate component testing is not allowed. The aerator package must be tested and approved by ETL, ETL-C, CE, UL or other accredited testing facilities.

**WARRANTY:** Warranty shall be three years.

**ACCEPTABLE MANUFACTURER:** This unit shall be an OTTERBINE \_\_\_\_\_ MODEL \_\_\_\_\_ horsepower manufactured by OTTERBINE/BAREBO, INC., 3840 MAIN RD. EAST, EMMAUS PA. U.S.A. 18049 U.S.A. PH: (610) 965-6018



Mooring the Triton is simple. There will be a difference between the surface and subsurface configurations, however each owner's manual provides the steps necessary to securely place your unit in the waterway.

When deciding upon the floating or subsurface aspirator, please note that in cases where there is an excessive amount of sludge or debris build up on the pond bottom, we recommend that you opt for the floating aspirator (Triton vs. Sub-Triton), as you may run into the risk of the Sub-Triton sinking into the floor of the pond or lake. For more information on whether this might be a concern for you, please contact Otterbine or your local distributor for an on-site inspection.

# ASPIRATOR SPECIFICATIONS

HP	Voltage Phase/Hz	Motor RPM	Running Amp Draw	*Pond Volume Influenced ft <sup>3</sup> (liters)	Min. Oper. Depth Triton Asp.	**Min. Oper. Depth Triton Asp.	Maximum Cable Runs (in feet) (approximate length)			***Ship Weight
							12awg	10awg	8awg	
1	115/1/60	1725	12.6	210,000 ft <sup>3</sup>	3 ft	2.5 ft	115	185	295	202 lbs
	230/1/50	1425	7.3	794,850 l	.9 m	.8 m	400	640	1020	92 kg
2	230/1/60	1725	6.5	210,000 ft <sup>3</sup>	3 ft	2.5 ft	450	720	1145	202 lbs
	230/1/50	1425	12	1,589,700 l	.9 m	.8 m	240	390	620	92 kg
3	230/1/60	1725	11.5	420,000 ft <sup>3</sup>	3 ft	2.5 ft	255	405	645	202 lbs
	230/1/50	1425	14.5	2,384,550 l	.9 m	.8 m	200	320	510	92 kg
4	230/1/60	1725	12.5	630,000 ft <sup>3</sup>	3 ft	2.5 ft	230	370	595	202 lbs
	230/3/60	1725	8.7	630,000 ft <sup>3</sup>	3 ft	2.5 ft	385	620	990	205 lbs
5	380/3/60	1680	4.7	610,000 ft <sup>3</sup>	3 ft	2.5 ft	1190	1900	3030	205 lbs
	400/3/50	1425	4.3	2,384,550 l	.9 m	.8 m	1365	2185	3485	93 kg
6	460/3/60	1725	4.1	630,000 ft <sup>3</sup>	3 ft	2.5 ft	1650	2635	4200	205 lbs
	230/3/60	1725	13.5	1,050,000 ft <sup>3</sup>	3 ft	2.5 ft	250	400	635	205 lbs
7	380/3/60	1680	7.5	1,022,000 ft <sup>3</sup>	3 ft	2.5 ft	745	1190	1895	205 lbs
	400/3/50	1425	6.2	3,974,250 l	.9 m	.8 m	950	1515	2415	93 kg
8	460/3/60	1725	7	1,050,000 ft <sup>3</sup>	3 ft		965	1545	2460	

\* Pond volume influenced based on empirical data obtained over a 40-minute period test and may vary due to voltage, elevation, and relative humidity. \*\* For optimal performance, maximum operating depth should not exceed 12ft/3.7m when using the Sub-Triton. \*\*\* Shipping weight includes unit, 50' of cable and Power Control Center, 50Hz applications do not receive power panel. 415 and 575 volt units available upon request.