

SPECIFICATIONS

A FLOATING FOUNTAIN AERATION SYSTEM

1.0 GENERAL

1.1 DESCRIPTION

- A. Manufacturer shall furnish a floating fountain aeration system capable of pumping water from below the surface of a body of water.
- B. A submersible motor shall draw water into an impeller housing where it shall be pumped into the atmosphere in the form of a decorative spray - type fountain.
- C. The water droplets shall become oxygen enriched and return to the surface, therefore transferring oxygen from the atmosphere into the body of water. Surface area of water body shall also be increased through constant wave action resulting in additional atmospheric oxygen transfer.
- D. This repeated action shall effectively mix and de-stratify the body of water and distribute the dissolved oxygen continuously.
- E. Fountain Aerator system shall include an oil-cooled motor sealed in a stainless steel housing, with shaft mounted impeller, attached to a float. This assembly shall be connected to an electrical control panel by underwater power cable, all of which as specified in SECTION 1.2.

1.2 AERATOR COMPONENTS DESCRIPTION

- A. **1 – 5HP Float** shall be made of linear low density polyethylene. Float shall contain a center tube which shall be minimum Schedule 40 PVC and is attached to the impeller housing with four stainless steel hex head bolts. An o-ring is used to prevent leakage. A protective stainless steel intake screen shall be mounted around the impeller housing between the float assembly and motor housing. The motor housing shall be attached to the impeller housing with stainless steel hardware. All optional lights and anchor mounting shall be capable of being installed into fixture mounting areas which are molded into the float design as an integral part of the float. (See SECTION 5).
- B. **Impeller** shall be precision machined and balanced, formed using Series 300 stainless steel. The impeller is connected to the motor shaft by a Series 300 stainless steel bolt and lockwasher.
- C. **Impeller housing** shall be cast from nylon type 6 material. The impeller housing shall be precision machined to accept the float tube and capable of being bolted to the motor housing. The impeller housing shall house the stainless steel impeller, insert and flow straightener (if applicable).
- D. **Flow Straightener** shall be precision machined from nylon type 6 material and shall have 18 curved vanes. The vanes shall take the spinning discharge water from the impeller and convert it to a straight, vertical flow. The gap between the vanes shall be at least 3/8" wide and have a total length not less than 2-1/2" long. It shall be factory installed for various optional spray patterns.
- E. **Motor housing** shall be Series 300 stainless steel. It shall have a permanent Series 300 stainless steel electrical hub welded on side of housing to allow electrical cable entry.

- F. **Motor** shall contain a Series 300 stainless steel shaft. The rotor shall be dynamically balanced and ball bearings supported. The stator windings shall be double dipped and baked with a Class F insulation, designed for oil immersion operation. The oil shall be a highly refined, mineral oil of food grade quality, specially formulated for lubrication. It shall meet FDA regulations. The oil shall provide continuous lubrication of bearings and internal seals and further function as an efficient heat transfer medium, allowing the motor to operate at 3450 RPM, at relatively low temperatures. The motor shall be contained in the motor housing by a Series 300 stainless steel top plate.
- G. **Seals** used to protect the motor against water or oil leakage shall be a mechanical, rotating type assembly, composed of ceramic, carbon and Series 300 stainless steel. All elastomers shall meet UL 778 requirements. This assembly shall then be encapsulated and protected within a Series 300 stainless steel cartridge assembly.
- H. **Underwater power cable** shall be UL Listed and specifically designed for underwater use. The conductors are flexible, stranded copper wire sized for the amp draw and length of run. The conductors shall be resistant to oil, water and cracking. Power cable shall be fitted with a cable strain relief device, located within five feet of motor housing, capable of being attached to the S hooks mounted on the motor housing clamp. This will ensure that no potential damage can occur to any cable connections, due to tension on the cable.
- I. **Underwater power cable disconnect** shall be located approximately three feet from the motor housing. It is a two piece molded assembly made of thermoplastics, meeting UL 778 requirements. One end of this disconnect is permanently attached to the stainless steel motor housing by means of a reinforced braided hose, sealed with a flexible potting compound. The other end is permanently attached to the underwater power cable and sealed with an approved compound to prevent water entry if damage would occur to the cable. This disconnect is sealed with an internal o-ring and by an external Series 300 stainless steel clamp ring, which can be easily opened. This allows removal of the motor housing without the power cable attached for storage or maintenance.
- J. **Fasteners and anchor connectors** shall be Series 300 stainless steel.
- K. **Electrical control panel** specifications, see SECTION 3.
- L. **Intake screen** shall be made of 18 Gauge, Series 300 stainless steel. The screen shall have a minimum of 58% open area, representing 153 square inches of open intake area.
- M. **Large custom intake screen** (option) shall be made of 18 Gauge, Series 300 stainless steel. The large custom intake screen shall completely enclose the motor power unit assembly. It shall have a minimum of 765 square inches of open intake area. Additional depth is required.
- N. **Nozzles** (option) shall be interchangeable without the use of tools. Nozzles will be sealed to the float tube utilizing an o-ring and stainless steel thumb screws to prevent leakage.

FOUNTAIN AERATOR DETAIL SPECIFICATIONS

2.0 DETAILED INFORMATION

- 2.1 This specification is intended to provide prospective bidders the necessary information pertaining to the fountain aerator(s) specified for the _____ Project.
- 2.2 The MOTOR(S) shall be _____ HP, operating at _____ Volts, 60 Hertz, _____ Phase at 3450 RPM.
- 2.3 The MASTERS SERIES® MODEL(S) specified shall be the _____ MODEL NUMBER _____ capable of creating a _____ pattern. It shall come complete with an electrical control panel, protective intake screen to be attached to a float assembly and _____ feet of _____ gauge, 4 conductor underwater power cable.
- 2.4 The fountain aerator shall produce a SPRAY PATTERN _____ feet in diameter and _____ feet in height.

Please refer to TABLES 1, 2 and 3 to assist in the completion of SECTION 2.0

FOUNTAIN AERATOR DETAIL SPECIFICATIONS (cont.)

3.0 ELECTRICAL CONTROL PANEL COMPONENTS DESCRIPTION

- A. **Electrical enclosure** shall be NEMA 3R type, galvanized and powder-coat painted gray in color. Panel shall be both lock and mount capable.
- B. **GFCI breaker** shall provide overload and short circuit protection, combined with Class A ground fault protection.
- C. **Control breaker** shall provide overload protection and be capable of disconnecting all incoming electricity from the control panel.
- D. **Motor contactor** shall provide a means for disconnection of all motor leads. It shall be a magnetic, across the line starter type.
- E. **Overload assembly** shall provide overload protection by means of a bi-metallic overload relay. It is adjustable over the full load amperage draw of the motor. It shall have a visual trip indicator, test button and manual/automatic reset modes.
- F. **Timer** shall be a single pole type, rated at 120 Volts, 20 Amps, capable of a timing cycle, in 30 minute increments up to 24 hours.

3.1 SAFETY TESTING CONTROL PANEL

The electrical control panel shall be tested and approved as a complete unit. It is inspected and listed by Underwriters Laboratories, Inc. under Category 508: Industrial Control Panels and Category 778: Submersible Aerators and Aerating Fountain Pump Systems.

3.2 ACCEPTABLE MANUFACTURER

This fountain aerator electrical control panel, as specified in Section 3.0, shall be manufactured by AQUAMASTER FOUNTAINS AND AERATORS, 16024 CTH X, Kiel, WI 53042, (800) 693-3144 or approved equal.

3.3 INSTALLATION

The electrical control panel must be installed in accordance with the installation instructions, in compliance with all local and National Electrical Code requirements. This should be done by a licensed electrical contractor. Any alterations to or substitution for items in this system, unless allowed by the installation instructions, will void the Underwriters Laboratories Listing and will void the product warranty. It may also create a hazardous installation. Read the instructions thoroughly before starting the installation and follow them carefully throughout.

3.4 ELECTRICAL CONTROL PANEL WARRANTY

All electrical panel and their components have a 1 year warranty.

FOUNTAIN AERATOR DETAIL SPECIFICATION (cont.)

4.0 SAFETY TESTING

The floating fountain aeration system shall be tested and approved as a complete unit. This approval must meet Underwriters Laboratories Inc. requirements in compliance with Category 508: Industrial Control Panels and Category 778: Submersible Aerators and Aerating Fountain Pump Systems. Individual component testing and wet niche environment equipment approval are not acceptable.

4.1 ACCEPTABLE MANUFACTURER

This fountain aerator, as specified in Sections 2.2, 2.3 and 2.4, shall be manufactured by AQUAMASTER FOUNTAINS AND AERATORS, 16024 CTH X, Kiel, WI 53042, (800) 693-3144, or approved equal.

4.2 INSTALLATION

All AQUAMASTER FOUNTAIN AERATORS are designed and built to be installed with an AQUAMASTER UL Listed control panel and to be operated as a complete system. Any alterations to or substitution for items in this system, unless allowed by the installation instructions, will void the UL Listing and will void the product warranty. It may also create a hazardous installation. Read the instructions thoroughly before starting the installation and follow them carefully throughout.

4.3 WARRANTY

All 1 – 5HP AQUAMASTER FOUNTAIN AERATORS motors and 3 year seal assemblies are covered under warranty at 100% replacement cost should it fail due to defects in materials or workmanship for a period of 3 years from the date of shipment, when given normal and proper usage as determined by the seller upon examination, and when owned by the original user.

FOUNTAIN AERATOR LIGHTING SYSTEMS AND OPTIONS SPECIFICATIONS

- 5.0 LIGHTING SYSTEM shall be _____ Volt, Model #(s)_____.
There are _____ total fixtures, containing _____
(clear or choose color(s): amber, blue, red, green or turquoise) lenses.
- 5.1 A total length of _____ feet of _____ gauge 3 conductor underwater power cable is required. Two runs of cable may be required; reference cable sizing chart.
- 5.2 MULTI-PURPOSE ELECTRONIC LIGHT SYSTEM SEQUENCER shall be capable of cycling light fixtures off and on, up to 6 programs. Yes____No____
- 5.3 A total length of _____ feet of _____ gauge 4 conductor underwater power cable is required for sequencer.
- 5.4 DEEP WATER INTAKE SYSTEM shall be capable of drawing water from further depths, in three foot increments. This system provides the fountain aerator the capability to de-stratify the pond very efficiently. Total length should reach beyond 50% depth but not to exceed 75%. Total _____ feet.
- 5.5 LARGE CUSTOM INTAKE SCREEN shall provide additional protected intake area if Fountain Aerator(s) will operate in a potentially high debris filled aquatic environment. Yes _____ No _____

Please refer to TABLE 4 to assist in the completion of SECTION 5.

TECHNICAL DATA

REFERENCE MATERIAL FOR SECTION 2.0 DETAILED INFORMATION

Table 1: THE MASTERS SERIES® Performance Specifications

Model Number	HP	Voltage and Phase	Running Amp Draw	Minimum Operating Depth	Ship Weight LBS.	LAKEWOOD FULL FLOW (no nozzle)	Spray Pattern Specifications: Height x Diameter GPM
M5410-SC	1	120 - 1PH	20.0	3'	250	8 x 18 GPM 318	
M5412-SC		208-240 - 1PH	10.0				
M5412-3SC		208-240 - 3PH	5.8				
M5414-3SC		440-480 - 3PH	2.9				
M5422-SC	2	208-240 - 1PH	12.5	3'	250	10 x 24 GPM 344	
M5422-3SC		208-240 - 3PH	8.0				
M5424-3SC		440-480 - 3PH	4.0				
M5432-SC	3.5	208-240 - 1PH	19.0	3'	250	13 x 34 GPM 415	
M5432-3SC	3	208-240 - 3PH	10.0				
M5434-3SC		440-480 - 3PH	5.0				
M5452-SC	5	208-240 - 1PH	28.0	3'	300	15 x 30 GPM 535	
M5452-3SC		208-240 - 3PH	18.0				
M5454-3SC		440-480 - 3PH	9.0				
Model Number	HP	Voltage and Phase	Running Amp Draw	MASTERS NOZZLE SERIES			
				Birdie	Ace	Par	Eagle
M5410-SC	1	120 - 1PH	20.0	3 x 5 GPM 336	Upper 4 x 10 Lower 3 x 22 GPM 305	Upper 6 Lower 3 x 20 GPM 274	11 x 8 GPM 119
M5412-SC		208-240 - 1PH	10.0				
M5412-3SC		208-240 - 3PH	5.8				
M5414-3SC		440-480 - 3PH	2.9				
M5422-SC	2	208-240 - 1PH	12.5	3.5 x 5 GPM 361	Upper 6 x 11 Lower 4 x 26 GPM 345	Upper 10 Lower 4 x 26 GPM 294	15 x 9 GPM 136
M5422-3SC		208-240 - 3PH	8.0				
M5424-3SC		440-480 - 3PH	4.0				
M5432-SC	3.5	208-240 - 1PH	19.0	4.5 x 8 GPM 454	Upper 8 x 12 Lower 5 x 32 GPM 412	Upper 13 Lower 6 x 30 GPM 377	17 x 11 GPM 143
M5432-3SC	3	208-240 - 3PH	10.0				
M5434-3SC		440-480 - 3PH	5.0				
M5452-SC	5	208-240 - 1PH	28.0	5 x 12 GPM 546	Upper 10 x 12 Lower 6 x 35 GPM 532	Upper 15 Lower 7 x 40 GPM 487	20 x 12 GPM 308
M5452-3SC		208-240 - 3PH	18.0				
M5454-3SC		440-480 - 3PH	9.0				
Model Number	HP	Voltage and Phase	Running Amp Draw	MASTERS NOZZLE SERIES			
				Masters Crystal Geyser	Masters Crown & Geyser	Masters Wide Geyser	Masters Geyser
M5410-SC	1	120 - 1PH	20.0	15 x 26 GPM 214	Geyser Ht 13 Crown 5 x 24 GPM 215	18 x 10 GPM 182	18 x 2 GPM 141
M5412-SC		208-240 - 1PH	10.0				
M5412-3SC		208-240 - 3PH	5.8				
M5414-3SC		440-480 - 3PH	2.9				
M5422-SC	2	208-240 - 1PH	12.5	17 x 30 GPM 241	Geyser Ht 15 Crown 6 x 40 GPM 282	22 x 10 GPM 203	20 x 2 GPM 205
M5422-3SC		208-240 - 3PH	8.0				
M5424-3SC		440-480 - 3PH	4.0				
M5432-SC	3.5	208-240 - 1PH	19.0	19 x 30 GPM 254	Geyser Ht 20 Crown 6 x 42 GPM 297	26 x 10 GPM 208	24 x 2 GPM 209
M5432-3SC	3	208-240 - 3PH	10.0				
M5434-3SC		440-480 - 3PH	5.0				
M5452-SC	5	208-240 - 1PH	28.0	22 x 32 GPM 396	Geyser Ht 22 Crown 7 x 50 GPM 465	28 x 10 GPM 345	28 x 2 GPM 380
M5452-3SC		208-240 - 3PH	18.0				
M5454-3SC		440-480 - 3PH	9.0				

REFERENCE MATERIAL FOR SECTION 2.0 DETAILED INFORMATION

Table 1: THE MASTERS SERIES® Performance Specifications (continued)

Model Number	HP	Voltage and Phase	Running Amp Draw	NOZZLES REQUIRING FLOW STRAIGHTENERS			
				Double Eagle	Turnberry	Half Moon	Medina
M5410-SC	1	120 - 1PH	20.0	18 x 5 GPM 109	5.5 x 1.5 GPM 226	7 x 28 GPM 253	9 x 14 GPM 218
M5412-SC		208-240 - 1PH	10.0				
M5412-3SC		208-240 - 3PH	5.8				
M5414-3SC		440-480 - 3PH	2.9				
M5422-SC	2	208-240 - 1PH	12.5	23 x 5 GPM 137	7 x 18 GPM 278	9 x 30 GPM 278	12 x 18 GPM 253
M5422-3SC		208-240 - 3PH	8.0				
M5424-3SC		440-480 - 3PH	4.0				
M5432-SC	3.5	208-240 - 1PH	19.0	25 x 5 GPM 129	8 x 20 GPM 300	12 x 34 GPM 315	14 x 20 GPM 275
M5432-3SC	3	208-240 - 3PH	10.0				
M5434-3SC		440-480 - 3PH	5.0				
M5452-SC	5	208-240 - 1PH	28.0	32 x 5 GPM 297	10 x 23 GPM 391	13 x 40 GPM 466	18 x 24 GPM 410
M5452-3SC		208-240 - 3PH	18.0				
M5454-3SC		440-480 - 3PH	9.0				
Model Number	HP	Voltage and Phase	Running Amp Draw	NOZZLES REQUIRING FLOW STRAIGHTENERS			
				Valhalla	Champion	Diamondback	Red Tail
M5410-SC	1	120 - 1PH	20.0	Upper 4 Middle 7 x 14 Lower 3 x 35 GPM 222	7 x 20 GPM 157	5 x 50 GPM 184	Upper 8 x 18 Lower 4 x 35 GPM 233
M5412-SC		208-240 - 1PH	10.0				
M5412-3SC		208-240 - 3PH	5.8				
M5414-3SC		440-480 - 3PH	2.9				
M5422-SC	2	208-240 - 1PH	12.5	Upper 12 Middle 8 x 20 Lower 4 x 35 GPM 251	9 x 24 GPM 168	6 x 60 GPM 181	Upper 10 x 28 Lower 4.5 x 42 GPM 265
M5422-3SC		208-240 - 3PH	8.0				
M5424-3SC		440-480 - 3PH	4.0				
M5432-SC	3.5	208-240 - 1PH	19.0	Upper 16 Middle 10 x 20 Lower 4 x 40 GPM 269	10 x 30 GPM 195	7 x 60 GPM 226	Upper 13 x 30 Lower 5 x 45 GPM 281
M5432-3SC	3	208-240 - 3PH	10.0				
M5434-3SC		440-480 - 3PH	5.0				
M5452-SC	5	208-240 - 1PH	28.0	Upper 18 Middle 12 x 20 Lower 5 x 45 GPM 414	15 x 37 GPM 414	5 x 60 GPM 398	Upper 15 x 38 Lower 5.5 x 52 GPM 469
M5452-3SC		208-240 - 3PH	18.0				
M5454-3SC		440-480 - 3PH	9.0				
Model Number	HP	Voltage and Phase	Running Amp Draw	ADJUSTABLE NOZZLES W/FLOW STRAIGHTENERS			
				Cypress	Longbow	Reflection	Sawgrass
M5410-SC	1	120 - 1PH	20.0	9 x 14 GPM 273	Upper 9 Lower 3 x 36 GPM 251	Upper 7 x 16 Lower 3 x 22 GPM 273	Upper 8 x 24 Lower 5 x 24 GPM 276
M5412-SC		208-240 - 1PH	10.0				
M5412-3SC		208-240 - 3PH	5.8				
M5414-3SC		440-480 - 3PH	2.9				
M5422-SC	2	208-240 - 1PH	12.5	12 x 18 GPM 308	Upper 11 Lower 4 x 34 GPM 261	Upper 9 x 20 Lower 3 x 30 GPM 307	Upper 10 x 30 Lower 6 x 30 GPM 293
M5422-3SC		208-240 - 3PH	8.0				
M5424-3SC		440-480 - 3PH	4.0				
M5432-SC	3.5	208-240 - 1PH	19.0	14 x 20 GPM 341	Upper 14 Lower 5 x 30 GPM 290	Upper 12 x 26 Lower 3 x 30 GPM 354	Upper 13 x 34 Lower 7 x 34 GPM 338
M5432-3SC	3	208-240 - 3PH	10.0				
M5434-3SC		440-480 - 3PH	5.0				
M5452-SC	5	208-240 - 1PH	28.0	18 x 24 GPM 507	Upper 16 Lower 6.5 x 30 GPM 459	Upper 13 x 16 Lower 4 x 37 GPM 485	Upper 15 x 24 Lower 7 x 38 GPM 493
M5452-3SC		208-240 - 3PH	18.0				
M5454-3SC		440-480 - 3PH	9.0				

*All performance data (heights and diameters), have been tested at 240 volt single phase electrical.
Your overall performance may vary due to actual voltage, intake restrictions and cable lengths.

TABLE 2: CABLE SIZING CHARTS

MAXIMUM RECOMMENDED LENGTH FROM FOUNTAIN TO CONTROL PANEL

Single Phase 3 Conductor			Copper Wire Gauge Size						
Unit	Volts	Approx Amps	#1 4	#12	#10	#8	#6	#4	#2
1/2 HP	120	6	17 5	275	450	675	1000	1700	2700
1/2 HP	208-240	3	55 0	875	1400	2200	3500	5500	8000
4 conductor: Required on all 1 - 10HP Single Phase Aerators									
1 HP	120	20	----	----	130	200	325	500	800
1 HP	208-240	10	----	250	375	600	1000	1500	2400
2 HP	208-240	12.5	----	200	300	475	775	1200	1900
3.5 HP	208-240	19	----	--	200	350	550	850	1350
5 HP	208-240	28	----	----	150	275	450	800	1250
10HP	208-240	55	----	----	----	100	200	300	450
Three Phase 4 conductor			Copper Wire Gauge Size						
Unit	Volts	Approx Amps	#1 4	#12	#10	#8	#6	#4	#2
1 HP	208-240	5.8	---	450	700	1200	1800	3000	4800
1 HP	440-480	2.9	---	1700	2700	4300	6900	11000	17500
2 HP	208-240	8	---	300	500	800	1200	1900	3100
2 HP	440-480	4	---	1100	1750	2800	4450	7000	11200
3 HP	208-240	10	---	250	400	650	1000	1650	2600
3 HP	440-480	5	---	1000	1600	2550	4000	6400	10000
5 HP	208-240	18	---	150	250	400	600	950	1500
5 HP	440-480	9	---	600	950	1550	2475	3900	6250
10 HP	208-240	33.5	---	---	100	200	300	500	700
10 HP	440-480	16.7	---	--	450	700	1100	1800	2800
15 HP	208-240	46	---	---	----	150	225	375	600
15 HP	440-480	23	---	---	350	600	950	1500	2400
20 HP	208-240	58	---	---	----	100	175	275	400
20 HP	440-480	29	---	---	275	400	700	1100	1700
25 HP	208-240	72	---	---	----	---	150	225	350
25 HP	440-480	36	---	---	200	375	600	950	1500

TABLE 3: FOUNTAIN AERATOR SPRAY PATTERN DESCRIPTIONS

1. **LAKEWOOD FULL FLOW**

New internal impeller technology creates this full, more upright cone pattern, **without a nozzle**. This is the base model for The Masters Series®.

SPECIFICATION DESCRIPTION: FAN SHAPE

2. **BIRDIE**

Creates a dense, round ball of water, perfect for smaller containments of water.

SPECIFICATION DESCRIPTION: ROUND

3. **ACE**

Full circle, two-tiered pattern with multiple-point center formation.

SPECIFICATION DESCRIPTION: POINTED FAN SHAPE

4. **PAR**

Heavy-water version of the Crown & Geyser, excellent choice in open areas.

SPECIFICATION DESCRIPTION: DENSE COMBINED FAN & COLUMN

5. **EAGLE**

Elongated, frothy vertical pattern creates a beautiful, full profile.

SPECIFICATION DESCRIPTION: FROTHY VERTICAL COLUMN

6. **MASTERS GEYSER**

A multiport nozzle achieves a dramatic vertical pattern in a solid column of water, fanning slightly at the top.

SPECIFICATION DESCRIPTION: SOLID VERTICAL COLUMN

7. **MASTERS WIDE GEYSER**

A modification of the Geyser nozzle produces a less dense, more decorative version.

SPECIFICATION DESCRIPTION: WIDE VERTICAL COLUMN

8. **MASTERS CROWN & GEYSER**

A beautiful, dramatic pattern still achieves aeration results. This nozzle combines the Lakewood Full Flow with the vertical Geyser column of water through its center.

SPECIFICATION DESCRIPTION: COMBINED FAN & COLUMN

9. **MASTERS CRYSTAL GEYSER**

This nozzle produces a very decorative crystalline spray pattern in an abstract, multi-tiered formation.

SPECIFICATION DESCRIPTION: FROTHY SPRAY

10. **DOUBLE EAGLE**

Statuesque, frothy vertical pattern creates a stunning full profile.

SPECIFICATION DESCRIPTION: SOLID VERTICAL COLUMN

TABLE 3: FOUNTAIN AERATOR SPRAY PATTERN DESCRIPTIONS (cont.)

11. TURNBERRY

Upright funnel shape creates a stunning full profile pattern.
SPECIFICATION DESCRIPTION: HEAVY FAN SHAPE

12. HALF MOON

Gorgeous multi-stream pattern results in a full floral effect.
SPECIFICATION DESCRIPTION: SCALLOPED FAN SHAPE

13. MEDINA

Taller, narrower version of the Turnberry.
SPECIFICATION DESCRIPTION: NARROW FAN SHAPE

14. VALHALLA

New stunning tri-tier resulting in both excellent height and diameter.
SPECIFICATION DESCRIPTION: TRI-TIER SPRAY

15. CHAMPION

Classic multi-stream pattern with specific points resulting in a dramatic surface effect.
SPECIFICATION DESCRIPTION: INDIVIDUAL STREAMS FAN SHAPE

16. DIAMONDBACK

Low height pattern sending streams of water in tremendous diameter.
SPECIFICATION DESCRIPTION: WIDEST LOW FAN SHAPE

17. RED TAIL

Dazzling, full circle, two-tiered pattern with multiple-point sprays for a refreshing ambience.
SPECIFICATION DESCRIPTION: TWO-TIERED INDIVIDUAL STREAMS

18. CYPRESS

Upright funnel-shaped pattern that you can set to your pond's requirements.
SPECIFICATION DESCRIPTION: ADJUSTABLE NARROW FAN SHAPE

19. LONGBOW

Classic, two-tiered pattern combining a thick, center geyser with full lower circle spray.
SPECIFICATION DESCRIPTION: ADJUSTABLE COMBINED FAN AND STREAMS

20. REFLECTION

Dazzling, full circle, two-tiered pattern with multiple-point formation.
SPECIFICATION DESCRIPTION: ADJUSTABLE COMBINED FAN AND STEAMS

21. SAWGRASS

Slightly taller, more upright version of the Reflection.
SPECIFICATION DESCRIPTION: ADJUSTABLE COMBINED FAN AND STREAMS

TABLE 4: FOUNTAIN AERATOR LIGHTING SYSTEMS

AQUAMASTER FOUNTAIN AERATORS are even more dramatic at night, with the addition of a UL and cUL Listed NIGHT GLOW LIGHTING SYSTEM.

Any lighting system choice includes stainless steel lamp housings, ready to be installed in the float, sealed with clear tempered glass lenses in a stainless steel clamp ring. Minimal installation is required. All lights remain water-cooled and out of sight below the surface.

All necessary electrical controls, including timer, are pre-wired into the fountain aerator's existing UL Listed control panel. Optional glass colored lenses (amber, blue, red, green or turquoise), with or without an optional sequencer complete your dramatic aquatic display.

For uniformity of spray pattern coverage, 4 lights minimum is recommended.

1. LINE VOLTAGE: 120 Volt Lighting Systems

A. 1 – 5 HP Fountain Aerator

1 – 5HP Fountain Aerator Lighting Systems available in 75, 150, or 250 watt fixtures

75 Watt Fixtures	Each system includes:
2 light system: Model # 870252	
3 light system: Model # 870253	
4 light system: Model # 870254	
6 light system: Model # 870256	
8 light system: Model # 870258	
	<ul style="list-style-type: none"> • 75 Watt Par 30 halogen flood lamps • 50' of underwater cable • GFCI Protection • Timer • Clear lenses • UL and cUL Listing

150 Watt Fixtures	Each system includes:
2 light system: Model # 870262	
3 light system: Model # 870263	
4 light system: Model # 870264	
6 light system: Model # 870266	
8 light system: Model # 870268	
250 Watt Fixtures	
2 light system: Model # 870272	
3 light system: Model # 870273	
4 light system: Model # 870274	
6 light system: Model # 870276	
8 light system: Model # 870278	
	<ul style="list-style-type: none"> • 150 or 250 Watt quartz halogen flood lamps • 50' of underwater cable • GFCI Protection • Timer • Clear lenses • UL and cUL Listing

TABLE 4: FOUNTAIN AERATOR LIGHTING SYSTEMS (cont.)

CABLE SIZING CHART FOR LIGHTS
 MAXIMUM RECOMMENDED LENGTH FROM FOUNTAIN LIGHTS TO CONTROL PANEL

3 Conductor				Copper Wire Gauge Size						
Watts Per Fixture	# of Fixtures	Volts	Approx Amps	#14	#12	#10	#8	#6	#4	#2
75	2	120	1.3	750	1200	2000	3000	5000	8000	13000
75	3	120	1.9	500	800	1300	2000	3300	5700	9000
75	4	120	2.5	400	600	1000	1600	2500	4300	6900
75	6	120	3.8	250	400	650	1000	1650	2800	4500
75	8	120	5	200	300	500	800	1200	2100	3400
150	2	120	2.5	400	600	1000	1600	2500	4300	6900
150	3	120	3.8	250	400	650	1000	1650	2800	4500
150	4	120	5	200	300	500	800	1200	2100	3400
150	6	120	7.5	125	200	325	525	825	1400	2300
150	8	120	10	100	150	250	400	625	1000	1700
250	2	120	4.2	250	400	640	1000	1600	2500	4100
250	3	120	6.3	160	260	420	675	1050	1700	2700
250	4	120	8.5	100	200	300	500	750	1250	2000
250	6	120	12.5	--	125	200	325	500	800	1300
250 *	8	120	17	Requires 2 runs of cable						
			2 runs at:	100	200	300	500	750	1250	2000
500 *	4	120	17	Requires 2 runs of cable						
			2 runs at:	100	200	300	500	750	1250	2000
500 *	6	120	25	Requires 2 runs of cable						
			2 runs at:	--	125	200	325	500	800	1300
500 *	8	120	34	Requires 2 runs of cable						
			2 runs at:	--	100	150	250	400	625	1000

TABLE 4: FOUNTAIN AERATOR LIGHTING SYSTEMS (cont.)

2) **LOW VOLTAGE:** 12 Volt kits

A. Set #1: Model #870102
2 light kit

B. Set #2: Model #870104
4 light kit

Each set includes:

- 50 Watt Par 36 halogen sealed beam lamps
- Fifty feet of underwater cable
- Heavy duty transformer
- Timer
- Clear lenses

CABLE SIZING CHART

MAXIMUM RECOMMENDED LENGTH FROM FOUNTAIN AERATOR LIGHTS TO TRANSFORMER AT CONTROL PANEL

3 CONDUCTOR			COPPER WIRE GAUGE SIZE				
# OF FIXTURES	VOLTS	WATTS	#14	#12	#10	#8	#6
2	12	100	50	100	150	N/A	N/A
4	12	200	---	50	100	150	N/A