

SPECIFICATIONS
MASTERS SERIES® FLOATING FOUNTAIN AERATOR SYSTEM (7.5-10HP)

1.0 GENERAL

1.1 DESCRIPTION

- A. Manufacturer shall furnish a floating fountain aerator 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 naval brass 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. **7.5 – 10HP Float** shall be made of linear low density polyethylene. Float systems shall be circular in design and its series 300 stainless steel mounting rails shall be bolted to the series 300 stainless steel cart frame.
- B. **Stainless Steel Cart** shall be formed series 300 stainless steel tubing, welded and bolted to form a compact stainless steel cart frame. The motor, motor housing and discharge assembly shall be bolted to this compact design for ease of removal. The four anchoring brackets shall be part of this assembly. Up to eight optional lights shall be capable of being installed into the fixture mounting areas. The frame shall be equipped with four heavy duty linear low density polyethylene wheels permanently mounted to the stainless steel frame. The wheels shall have a diameter of not less than ten inches and a width not less than five inches for ground bearing purposes.
- C. **Impeller** shall be precision machined and balanced, formed using Naval Brass or T316 Stainless Steel. The impeller is connected to the motor shaft by a series 300 stainless steel bolt and lock washer.
- D. **Impeller Housing** shall be machined from acetal 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 naval brass or T316 Stainless Steel impeller and flow straightener (if applicable).
- E. **Flow Straightener (where applicable)** shall be precision machined from acetal material and shall have numerous 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 9/16” wide and have a total length not less than 3” long. It shall be factory installed for various optional spray patterns.

- F. **Motor Housing** shall be Series 300 Stainless Steel. 7.5 – 10HP shall have a permanent series 300 stainless steel electrical hub welded on the side of the housing to allow electrical cable entry.
- G. **Motor** shall contain a 316 Stainless Steel shaft for superior corrosive resistance. Single Phase shall be a permanent split phase capacitor run motor and Three Phase shall be an induction motor. The rotor shall be dynamically balanced and run in a ball bearing supported system. The stator windings shall be double dipped and baked with a Class F insulation, designed for oil immersion operation. The oil shall be of a synthetic food grade quality, specially formulated for lubrication, meeting 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.
- H. **Seals** used to protect the motor against water or oil leakage shall be a mechanical rotating type assembly composed of Silicon carbide, Series 300 Stainless Steel and brass positive drive system. The positive drive assembly shall be attached to the motor shaft with two allen head set screws. These set screws shall be tightened into pre-drill dimples drilled into the shaft to prevent the seal assembly from slipping at any time the motor shaft is rotating, thus creating a non slip positive drive system. All elastomers shall meet UL 778 requirements. This assembly shall then be encapsulated and protected within a series 300 stainless steel cartridge assembly. This assembly shall be filled with a synthetic food grade oil meeting FDA regulations.
- I. **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 latch mounted on the stainless steel cart. This will ensure that no potential damage can occur to any cable connections, due to tension on the cable.
- J. **Underwater Power Cable Disconnect** shall be located approximately five feet from the series 300 stainless steel motor housing. It is a two piece molding assembly made of thermoplastic material meeting the UL 778 requirements. The cap half of this disconnect shall be permanently attached to a wire reinforced braided hose assembly. The other end of this hose assembly shall be attached to a series 300 stainless steel hub which is welded to a series 300 stainless steel motor housing. This complete assembly shall be sealed with a flexible potting compound.
- K. **Fasteners and anchor connectors** shall be Series 300 Stainless Steel.
- L. **Electrical control panel** specifications, see SECTION 3.
- M. **Intake screen** shall be made of 16 Gauge, Series 300 Stainless Steel. The large custom intake screen shall completely enclose the motor power unit assembly. It shall have a minimum of 51% open area representing 692 square inches of open intake area for 7.5-10HP.
- N. **Nozzles** (optional) shall be interchangeable without the use of tools, in most cases. Nozzles will be sealed to the float tube utilizing an o-ring and series 300 stainless steel thumb screws to prevent leakage.

- O. **Series 316 Stainless Steel Upgrade** (optional) is available for sites with salt or brackish water. This option will upgrade all series 300 stainless steel components to series 316.

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. **Ground Fault Protection**
GFCI Breaker shall provide overload protection and be capable of disconnecting all incoming electricity from the control panel or a molded case breaker shall provide overload and short circuit protection, while a residual current device or ground fault relay kit rated at 30 mA shall provide 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 Relay** shall provide overload protection by means of a bi-metallic element. It is adjustable over the full load amperage draw of the motor. It shall have a visual trip indicator, test button and manual/auto reset modes.
- F. **Soft Start (three phase ONLY)** shall provide ramped starting and stopping to minimize electrical and mechanical stresses to the motor and power source.
- G. **Digital Timer** shall be a single pole type, rated at 120 Volts, 16 Amps, capable of 8 ON / OFF functions per day for 7 days. Digital timer has a lithium battery to retain the programming when power is disconnected.

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 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 control panels and their components have a 3 year warranty on parts and labor.

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 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 7.5-10HP AQUAMASTER® THE MASTERS SERIES® FOUNTAIN AERATORS motor, seal assembly, float and underwater power cable (referred to as in-water components) are covered under warranty at 100% replacement cost should it fail due to defects in materials or workmanship for a period of 4 years on parts and labor. This is in effect 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 LED/RGBW _____ Volt/Watts, Model #(s)_____. There are _____ total fixtures, containing _____ (choose color(s) if applicable: white, amber, blue, red, or green) color board assemblies.
- 5.1** A total length of _____ feet of _____ gauge 3(LED) or 5(RGBW) 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. Two runs of cable is required.
- 5.4 SERIES 316 STAINLESS STEEL UPGRADE** is available for sites with salt or brackish water. Yes ____ No _____

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

6.0 DESCRIPTION - LIGHTING

- A. **Light Set** shall consist of line voltage (120 VAC) 22W LED, 35W LED, or 40W RGBW LED lighting system with either 4, 6, or 8 lights.
- B. **Lights** shall consist of a power supply/driver module with a 22W, 35W, or 40W RGBW (10W red, 10W green, 10W blue, 10W white) LED light engine.
- C. **Light Fixture** shall be of Series 300 Stainless Steel construction. They shall have a permanent series 300 stainless steel electrical hub welded on the bottom of the housing to allow electrical cable entry and be mounted with series 300 stainless steel brackets and fasteners.
- D. **Light Fixture Assembly** shall consist of a lens made of tempered glass with a clear non-diffusing surface with a minimum of 5/32nd thickness and sealed with “V” shaped lens gasket made of silicon. Clamp ring shall be of series 300 stainless steel. Fasteners and mounting hardware shall be of series 300 stainless steel.
- E. **Underwater Pin and Socket Connector** shall consist of a Series 900, IP68 pin and socket connector. It shall be of a 3(LED) or 5(RGBW) pin configuration rated 32 Amps at 600 VAC. The pin and socket ends shall each be attached to a UL Listed underwater power cable rated at 600 Volts. They both shall be permanently secured to their UL Listed power cables by an integrated neoprene grommet and compression nut assembly. These assemblies shall be epoxy filled to prevent entry of water or any other foreign matter. The pin end assembly shall be permanently attached to the light fixture with a nonmetallic connector and potted using a flexible approved potting compound. The socket end assembly shall be permanently attached to the power cable. Both the pin end and socket end assemblies come with protector caps.
- F. **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 the first light fixture. This will ensure that no potential damage can occur to any cable connections, due to tension on the cable.
- G. **Light Controls** shall consist of a GFCI (Ground Fault Circuit Interrupter), overcurrent protection (fuse), digital timer with battery back-up. The Sequencer (optional) shall be capable of cycling light fixtures on and off, up to 8 fixtures. The RGBW controller (optional) is pre-programmed with assorted color, shows and holiday themed selectable programs. The controller can also adjust program speed and brightness. The standard controller shall consist of a programmable controller with push button interface. An optional programmable WiFi controller is available with an Android or iOS app included. An Android tablet preloaded with the app and connected to the controller is also available as a WiFi option.
- H. **Safety Testing** shall be tested and approved as a complete assembly. This approval must meet Underwriters Laboratories Inc. requirements in compliance with UL category 676: Underwater Luminaires.
- I. **Warranty** on all AQUAMASTER LIGHTING SYSTEMS are covered under warranty at 100% replacement cost should it fail due to defects in materials or workmanship for a period of 3 years.

TABLE 1: THE MASTERS SERIES® PERFORMANCE SPECIFICATIONS

**TECHNICAL DATA
REFERENCE MATERIAL FOR SECTION 2.0 DETAILED INFORMATION**

Model Number	HP	Voltage and Phase	Running Amp Draw	Minimum Operating Depth	Ship Weight LBS.	LAKEWOOD FULL FLOW (no nozzle)	MASTERS NOZZLE SERIES
							Biscayne
M5472-SC	7.5	220-240 - 1PH	42	4'	675 lbs.	16 x 40 GPM N/A	Upper 25 Lower 16 x 28 GPM 480
M5472-3SC		208-240 - 3PH	26.4				
M5474-3SC		440-480 - 3PH	13.2				
M5512-SC	10	220-240 - 1PH	60	4'	700 lbs.	16.5 x 50 GPM 990	Upper 32 Lower 18 x 28 GPM 540
M5512-3SC		208-240 - 3PH	36				
M5514-3SC		440-480 - 3PH	18				
Model Number	HP	Voltage and Phase	Running Amp Draw	MASTERS NOZZLE SERIES			
				Masters Crown & Geysier	Masters Crystal Geysier	Eagle	Masters Geysier
M5472-SC	7.5	220-240 - 1PH	42	Geysier Ht 27 Crown 9 x 52 GPM 505	26 x 34 GPM 489	22 x 12 GPM 341	34 x 2 GPM 454
M5472-3SC		208-240 - 3PH	26.4				
M5474-3SC		440-480 - 3PH	13.2				
M5512-SC	10	220-240 - 1PH	60	Geysier Ht 34 Crown 10 x 54 GPM 646	32 x 34 GPM 604	23 x 13 GPM 488	40 x 2 GPM 581
M5512-3SC		208-240 - 3PH	36				
M5514-3SC		440-480 - 3PH	18				
Model Number	HP	Voltage and Phase	Running Amp Draw	NOZZLES REQUIRING FLOW STRAIGHTENERS			
				Par	Masters Wide Geysier	Arabella	Augusta
M5472-SC	7.5	220-240 - 1PH	42	Upper 17 Lower 7 x 42 GPM 625	32 x 10 GPM 330	Please Consult Factory	17 x 45 GPM 532
M5472-3SC		208-240 - 3PH	26.4				
M5474-3SC		440-480 - 3PH	13.2				
M5512-SC	10	220-240 - 1PH	60	Upper 22 Lower 8 x 45 GPM 849	36 x 10 GPM 567	Please Consult Factory	23 x 60 GPM 692
M5512-3SC		208-240 - 3PH	36				
M5514-3SC		440-480 - 3PH	18				
Model Number	HP	Voltage And Phase	Running Amp Draw	NOZZLE REQUIRING FLOW STRAIGHTENERS			
				Bayside	Champion	Firestone	Half Moon
M5472-SC	7.5	220-240 - 1PH	42	Upper 20 x 25 Lower 6 x 30 GPM 510	19 x 50 GPM 480	Upper 21 Middle 13 x 27 Lower 6 x 40 GPM 562	14 x 38 GPM 626
M5472-3SC		208-240 - 3PH	26.4				
M5474-3SC		440-480 - 3PH	13.2				
M5512-SC	10	220-240 - 1PH	60	Upper 24 x 28 Lower 6 x 34 GPM 660	24 x 56 GPM 529	Upper 24 Middle 16 x 28 Lower 8 x 65 GPM 670	15 x 40 GPM 865
M5512-3SC		208-240 - 3PH	36				
M5514-3SC		440-480 - 3PH	18				

TABLE 1: THE MASTERS SERIES® PERFORMANCE SPECIFICATIONS

**TECHNICAL DATA
REFERENCE MATERIAL FOR SECTION 2.0 DETAILED INFORMATION**

Model Number	HP	Voltage And Phase	Running Amp Draw	NOZZLES REQUIRING FLOW STRAIGHTENERS			
				Imperial	Medinah	Prestwick	Royal
M5472-SC	7.5	220-240 - 1PH	42	Upper 16 Middle 14 x 32 Lower 5.5 x 40 GPM 524	20 x 26 GPM 556	Upper 16 x 32 Lower 8 x 48 GPM 574	Upper 12.5 x 40 Lower 4 x 40 GPM 569
M5472-3SC		208-240 - 3PH	26.4				
M5474-3SC		440-480 - 3PH	13.2				
M5512-SC	10	220-240 - 1PH	60	Upper 19 Middle 17 x 48 Lower 7 x 50 GPM 970	25 x 30 GPM 641	Upper 20 x 46 Lower 12 x 80 GPM 731	Upper 15 x 50 Lower 5 x 60 GPM 819
M5512-3SC		208-240 - 3PH	36				
M5514-3SC		440-480 - 3PH	18				
Model Number	HP	Voltage And Phase	Running Amp Draw	NOZZLES REQUIRING FLOW STRAIGHTENERS			
				Somerset	Turnberry	Valhalla	
M5472-SC	7.5	220-240 - 1PH	42	Please Consult Factory	12.5 x 28 GPM 629	Upper 20 Middle 14 x 22 Lower 7 x 40 GPM 465	
M5472-3SC		208-240 - 3PH	26.4				
M5474-3SC		440-480 - 3PH	13.2				
M5512-SC	10	220-240 - 1PH	60	Please Consult Factory	15 x 35 GPM 886	Upper 28 Middle 16 x 22 Lower 8 x 60 GPM 611	
M5512-3SC		208-240 - 3PH	36				
M5514-3SC		440-480 - 3PH	18				
Model Number	HP	Voltage And Phase	Running Amp Draw	ADJUSTABLE NOZZLES W/FLOW STRAIGHTENERS		SPECIALTY NOZZLES	
				Reflection	Sanibel	Captiva	Kiawah
M5472-SC	7.5	220-240 - 1PH	42	Upper 14 X 22 Lower 4 x 40 GPM 577	20 x 16 GPM 490	23 x 8 GPM 627	Upper 28 Lower 15 x 40 GPM N/A
M5472-3SC		208-240 - 3PH	26.4				
M5474-3SC		440-480 - 3PH	13.2				
M5512-SC	10	220-240 - 1PH	60	Upper 16 x 24 Lower 5 x 46 GPM 922	22 x 18 GPM 939	25 x 8 GPM 725	Upper 30 Lower 18 x 50 GPM N/A
M5512-3SC		208-240 - 3PH	36				
M5514-3SC		440-480 - 3PH	18				

Your overall performance may vary due to actual voltage, intake restrictions and cable lengths.
* GPMs not yet available for 7.5 & 10 HP. Please contact the factory.

TABLE 2: CABLE SIZING CHARTS

Maximum recommended length (in feet) from fountain aerator to control panel
 AquaMaster® recommends consulting a Licensed Electrician to properly size any underground cable from the main power source to our control panel. Cable runs to the panel located away from main power source requires recalculating voltage drop to insure proper cable sizing. Please contact AquaMaster® if assistance is required.

4 conductor: Required on all 1 - 10HP Single Phase & Three Phase Aerators									
Single Phase 4 conductor			4 conductor Copper Wire Gauge Size						
Unit	Volts	Approx Amps	#14	#12	#10	#8	#6	#4	#2
7.5HP	240 *	42.0	--	--	--	168	267	422	655
10HP	240 *	60.0	--	--	--	--	187	296	458

* The 7.5 and 10HP 1PH require a minimum voltage of 220.

Three Phase 4 conductor			4 conductor Copper Wire Gauge Size						
Unit	Volts	Approx Amps	#14	#12	#10	#8	#6	#4	#2
7.5HP	208-240	26.4	--	--	190	292	464	734	1137
7.5HP	440-480	13.2	--	481	802	1234	1964	3104	4811
10HP	208-240	36.0	--	--	139	214	340	538	834
10HP	440-480	18.0	--	--	588	905	1440	2276	3528

Actual voltage to motor will affect your fountain's performance.

TABLE 3: FOUNTAIN AERATOR SPRAY PATTERN DESCRIPTIONS

1. **Masters Series® ARABELLA – Straightened Flow Pattern (SFP)**
A sparkling, two-tiered pattern consisting of an upper multi-stream, and a lower full conical spray design.
SPECIFICATION DESCRIPTION: COMBINED FAN AND STREAMS

2. **Masters Series® AUGUSTA – Straightened Flow Pattern (SFP)**
Beautiful multi-tiered streamed pattern with a center geyser to add height.
SPECIFICATION DESCRIPTION: FAN SHAPE INDIVIDUAL STREAMS WITH CENTER GEYSER

3. **Masters Series® BAYSIDE – Straightened Flow Pattern (SFP)**
Narrower version of Red Tail, excellent in smaller contained areas.
SPECIFICATION DESCRIPTION: COMBINED FAN AND STREAMS

4. **Masters Series® BISCAYNE – Basic Flow Pattern (BFP)**
Variation of classic two-tier with taller, narrower lower spray.
SPECIFICATION DESCRIPTION: UPRIGHT FAN & COLUMN

5. **Masters Series® CAPTIVA – Specialty Pattern**
Heavy-water vertical frothy column, excellent in open areas.
SPECIFICATION DESCRIPTION: DENSE FROTHY COLUMN

6. **Masters Series® CHAMPION – Straightened Flow Pattern (SFP)**
Multi-stream pattern with specific points resulting in a dramatic surface effect.
SPECIFICATION DESCRIPTION: INDIVIDUAL STREAMS FAN SHAPE

7. **Masters Series® CROWN & GEYSER – Basic Flow Pattern (BFP)**
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

8. **Masters Series® CRYSTAL GEYSER– Basic Flow Pattern (BFP)**
This nozzle produces a very decorative crystalline spray pattern in an abstract, multi-tiered formation.
SPECIFICATION DESCRIPTION: FROTHY SPRAY

9. **Masters Series® EAGLE– Basic Flow Pattern (BFP)**
Elongated, frothy vertical pattern creates a beautiful, full profile.
SPECIFICATION DESCRIPTION: FROTHY VERTICAL COLUMN

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

10. **Masters Series® FIRESTONE – Straightened Flow Pattern (SFP)**
Beautiful tri-tier, perfect for smaller area applications.
SPECIFICATION DESCRIPTION: TRI-TIER MULTIPLE STREAMS
11. **Masters Series® GEYSER – Basic Flow Pattern (BFP)**
A multi-port nozzle achieves a dramatic vertical pattern in a solid column of water, fanning slightly at the top.
SPECIFICATION DESCRIPTION: SOLID VERTICAL COLUMN
12. **Masters Series® HALF MOON – Straightened Flow Pattern (SFP)**
Gorgeous multi-stream pattern results in a full floral effect.
SPECIFICATION DESCRIPTION: SCALLOPED FAN SHAPE
13. **Masters Series® IMPERIAL – Straightened Flow Pattern (SFP)**
Spectacular tri-tier, multiple-point rotating formation creating a dramatic effect.
SPECIFICATION DESCRIPTION: ROTATING COMBINED FAN AND STREAMS WITH CENTER GEYSER
14. **Masters Series® KIAWAH – Specialty Pattern**
Elegant two tier pattern combining a center geyser and multi-streamed lower tiered spray ring available with 32 or 64 nozzles.
SPECIFICATION DESCRIPTION: TWO-TIERED MULTI-STREAM FAN SHAPED WITH CENTER GEYSER.
15. **LAKWOOD FULL FLOW – Basic Flow Pattern (BFP)**
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
16. **Masters Series® MEDINAH – Straightened Flow Pattern (SFP)**
Taller, narrower version of the Turnberry.
SPECIFICATION DESCRIPTION: NARROW FAN SHAPE
17. **Masters Series® PAR – Basic Flow Pattern (BFP)**
Heavy-water version of the Crown & Geyser, excellent choice in open areas.
SPECIFICATION DESCRIPTION: DENSE COMBINED FAN & COLUMN
18. **Masters Series® PRESTWICK – Straightened Flow Pattern (SFP)**
Dramatic multi-streamed two-tiered pattern.
SPECIFICATION DESCRIPTION: TWO-TIERED MULTIPLE STREAMS

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

19. **Masters Series® REFLECTION – Adjustable Straightened Flow Pattern (ASFP)**
Dazzling, full circle, two-tiered pattern with multiple-point formation.
SPECIFICATION DESCRIPTION: ADJUSTABLE COMBINED FAN AND STREAMS

20. **Masters Series® ROYAL – Straightened Flow Pattern (SFP)**
Spectacular two-tier, multiple-point rotating formation creating a dramatic effect.
SPECIFICATION DESCRIPTION: ROTATING COMBINED FAN AND STREAMS

21. **Masters Series® SANIBEL – Adjustable Straightened Flow Pattern (ASFP)**
Taller and frothier version of Medina.
SPECIFICATION DESCRIPTION: NARROW FAN SHAPED

22. **Masters Series® SOMERSET – Straightened Flow Pattern (SFP)**
Heavy upright multi-stream fan shape with a geyser creates a stunning full profile pattern.
SPECIFICATION DESCRIPTION: HEAVY INDIVIDUAL STREAM FAN SHAPE WITH CENTER GEYSER

23. **Masters Series® TURNBERRY – Straightened Flow Pattern (SFP)**
Upright funnel shape creates a stunning full profile pattern.
SPECIFICATION DESCRIPTION: HEAVY FAN SHAPE

24. **Masters Series® VALHALLA – Straightened Flow Pattern (SFP)**
Stunning tri-tier resulting in both excellent height and diameter.
SPECIFICATION DESCRIPTION: TRI-TIER SPRAY

25. **Masters Series® WIDE GEYSER – Basic Flow Pattern (BFP)**
A modification of the Geyser nozzle produces a less dense, more decorative version.
SPECIFICATION DESCRIPTION: WIDE VERTICAL COLUMN

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.

LINE VOLTAGE: 120 Volt LED Lighting Systems

22 Watt LED Fixtures	Each system includes: <ul style="list-style-type: none"> • 22 or 35 Watt LED light engine • GFCI Protection • Digital Timer • Clear lenses • UL and cUL Listing • Choice of Red, Green, Blue, or Amber Light Engine
4 light system: Model # 870611	
6 light system: Model # 870615	
8 light system: Model # 870616	
35 Watt LED Fixtures	
4 light system: Model # 870797	
6 light system: Model # 870798	
8 light system: Model # 870799	

LINE VOLTAGE: 120 Volt RGBW LED Lighting Systems

40 Watt Fixtures	Each system includes: <ul style="list-style-type: none"> • 40 Watt RGBW LED light engine • GFCI Protection • Digital Timer • Clear lenses • UL and cUL Listing
4 light system: Model # 870682	
6 light system: Model # 870683	
8 light system: Model # 870684	

TABLE 4: FOUNTAIN AERATOR LIGHTING SYSTEMS (cont.)

CABLE SIZING CHART FOR LED LIGHTS

Maximum recommended length (in feet) from fountain lights to control panel.

AquaMaster® recommends consulting a Licensed Electrician to properly size any underground cable from the main power source to our control panel. Cable runs to the panel located away from main power source requires recalculating voltage drop to insure proper cable sizing. Please contact AquaMaster® if assistance is required.

3 Conductor				Copper Wire Gauge Size		
Watts Per Fixture	# of Fixtures	Volts	Approx Amps	#14	#12	#10
22	4	120	0.567	1708	2647	4412
22	6	120	0.850	1139	1765	2941
22	8	120	1.133	854	1324	2206
35	4	120	1.167	829	1286	2143
35	6	120	1.750	553	857	1429
35	8	120	2.333	415	643	1071

Cable Sizing Chart for lights when ordered with a sequencer

3 & 4 Conductor see notes below			Copper Wire Gauge Size		
Watts Per Fixture	# of Fixtures	Volts	#14	#12	#10
22	3 or 4	120	6832	3227	17648
22	6 (3 colors)	120	3416	1614	8824
22	8 (4 colors)	120	3416	1614	8824
35	3 or 4	120	3318	1567	8572
35	6 (3 colors)	120	1659	784	4286
35	8 (4 colors)	120	1659	784	4286

Lighting sequencer requires 2 runs of cable:

- 1) Sequencer with 3 colors require (1) run of 3 conductor cable and (1) run of 4 conductor cable
- 2) Sequencer with 4 colors require (2) runs of 4 conductor cable

CABLE SIZING CHART FOR RGBW LED LIGHTS

5 Conductor				Copper Wire Gauge Size		
Watts Per Fixture	# of Fixtures	Volts	Approx Amps	#14	#12	#10
40	4	120	1.333	726	1125	1875
40	6	120	2.000	484	750	1250
40	8	120	2.667	363	563	938