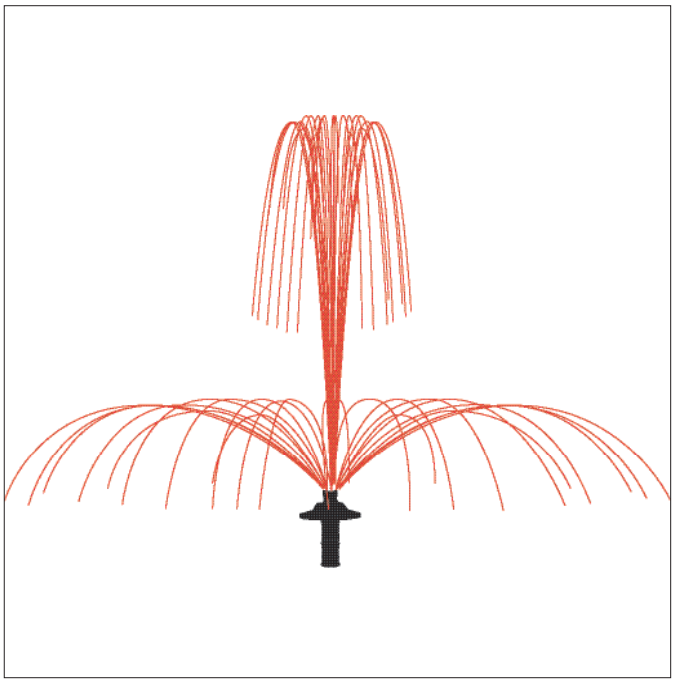
SS2 DISPLAY AERATOR SYSTEM REQUIREMENTS - DAFFODIL

The SS2 Display Aerator must be a Daffodil that must have a 2 tier pattern which will consist of a wide and low fan pattern. The Daffodil will also consist of a thick, high, center stream. The Daffodil nozzle must be interchangeable with all other Aqua Control SS2 Display Aerator spray patterns of the same horsepower.

SPRAY PATTERN SPECIFICATIONS

Dimensions for water display must be: For _____ HP, performance height must be _____ feet. Diameter must be _____ feet. The pumping rate must be _____ GPM.



Aqua Control SS2 Display Aerator - Daffodil

60 Hz									
HP	PERFORMANCE			DEPTH		AMPS			
	HT. (Feet)	DIA. (Feet)	GPM	MIN. WATER DEPTH		SINGLE PHASE	THREE PHASE		
				VERT.	HORZ.	230V	208V	230V	460V
1	10′	25′	250	32″	N/A	10	5	5	3
2	12′	30′	350	44″	28″	13	9	9	5
3	14′	36′	450	44″	28″	17	13	12	7
5	20′	54′	500	44″	28″	28	21	20	11
7.5	30′	75′	550	48″	28″	N/A	31	26	14

SPRAY NOZZLE ASSEMBLY

The nozzle must attach to the head which attaches to the upper tube assembly. The head supports the Aerator assembly on the float. The upper tube assembly shall be made from 6″ engineered SDR 35 PVC for toughness and corrosion resistance. The 6″ size matches the pump housing to reduce pressure losses from transitions.

FLOAT

The float must be one piece and molded of high strength, impact, UV and chemical resistant, polyethylene. The float color must be black for minimum visibility in water. Stainless steel inserts must be molded into the float for light attachment and for mooring eyebolts. The float must have molded hand holds for easy handling. The float must be designed for maximum stability and for easy height adjustability to achieve minimum visibility with as little as 1/2″ of a 15“ diameter portion of the float visible during operation. The float must be filled with closed cell urethane foam.

MOTOR SPECIFICATIONS

The Display Aerator must have a _____ HP _____ phase motor using _____ volts and drawing _____ amps.

The motor must be an industry standard submersible motor with mechanical seal and heavy duty bearings designed to operate under water. All external components must be stainless steel.

MOTOR WIRING

Single phase, 1HP motors shall be 2 wire plus ground with self contained capacitors and a built in overload.

1HP, three phase motors and 2HP thru 7.5HP motors (regardless of phase) shall be 3 wire plus ground with external capacitors and manually resettable overloads in a motor control box. A motor lead connects to the motor via a waterproof plug. All motors must have a ground wire. Three phase motors all use 3 wires plus ground.

PUMP ASSEMBLY

All pump components, including propellers, shrouds and flow straighteners must be precision molded Geloy and Noryl resins for the highest strength and durability. The pump components must be highly streamlined to provide efficient flow path with no performance robbing sharp turns or obstacles.

1HP units must have a water intake reaching a depth of 29 inches below the surface.

2HP to 7.5HP units must have a water intake below the surface reaching a depth of 42 inches for vertical system, or 26 inches for a horizontal system.

A short motor shaft extension must be accurately attached to the motor shaft to provide a rigid and precision attachment for the propeller(s).

INTAKE SUCTION SCREEN

1HP systems must have one non collapsible, high strength Geloy & Noryl resin intake suction screen made with specifically engineered raised ridges to prevent collapse and prevent anything larger than a 1/4 inch sphere from entering the intake suction screen assembly. The intake suction screen assembly must have no less than 2.35 square feet of suctions area of which at minimum 51% is available for water intake.

2HP to 7.5HP systems must have two non collapsible, high strength Geloy & Noryl resin intake suction screens made with specifically engineered raised ridges to prevent collapse and prevent anything larger than a 1/4 inch sphere from entering the intake suction screen assembly. The intake suction screen assembly must have no less than 4.7 square feet of suctions area of which at minimum 51% is available for water intake.

UNDERWATER POWER CONNECTION

The electrical connector system for the pump motor must form a watertight connection between the motor lead plug and the pump cord socket. The connector must be UL/cUL/CE rated at 600 volts and 32 amps for continuous submersion to a depth of 33 feet. It must be available with either 3 or 4 pins for connection to 2 wire or 3 wire motors plus a ground. The plug shall be epoxy potted to the motor lead and the socket to the pump cord to create a permanent and watertight connection to those wires. This connector system shall allow for a fast and highly reliable system for disconnecting the Fountain for service or storage. In addition, both the plug and socket shall have waterproof caps which will allow either to remain dry when submerged while disconnected.

UNDERWATER POWER CORD

The Power Cord must be UL listed for continuous submergence. It must be SOOW heavy duty round stranded and double insulated, copper cord. One wire in each cord must always act as a ground for proper system grounding.

The Motor Power Cord will be _____ gauge and _____ feet in length.

The Lighting Power Cord will be _____ gauge, _____ wires, and _____ feet in length.

CONTROL PANELS

The single phase control panels must be UL rated as a Fountain Control Panel.

Control panels are contained within lockable NEMA-3R fiberglass or painted steel enclosures rated for outdoor installation.

All control panels must include a factory installed externally operated disconnect switch, circuit breaker, class A (human rated) Ground Fault Circuit Interrupter (GFCI)/ on-off switch, 24 hour timer, contactor, and output terminals. 2hp thru 5hp, single-phase motors have a motor control box inside the panel. It holds the starting relay and capacitors and keeps them away from the water. Three phase control panels must have a Motor Circuit Controller that provides on-off, overload, phase loss, and short circuit protection.

*The National Electrical Code (NEC) and Underwriters Laboratory (UL) do not allow 460V fountain controllers. Aqua Control 460V control panels are built to UL standards but cannot be UL listed.

FASTENERS

All fasteners must be stainless steel.

WARRANTY

SS2 units come with a 3-year warranty. Control panel components have a 3-year warranty.
****An optional 2-year extended warranty is available for SS2 units at the time of purchase.*

PRODUCER

This will be an Aqua Control _____ HP Select Series 2 (SS2), produced by Aqua Control, Inc., 6A Wolfer Industrial Drive, Spring Valley, IL 61362 U.S.A. Phone: 800-377-0019; Fax: 815-664-4901.