

January 2000

## **FLOATING SURFACE AERATOR / FOUNTAIN PACKAGE SPECIFICATION**

### ***A. General***

The successful supplier will provide a total of \_\_\_\_\_ Floating Aerator/Fountains as manufactured by Aeromix of Minneapolis, Minnesota. Each unit provided shall be complete and include all necessary components to make a fully operating system. This includes, but is not limited to; float, motor/pump assembly, spray nozzle, submersible electrical cable, mooring line and control panel. Each will be of \_\_\_\_\_ horsepower (\_\_\_\_\_ kW), and shall pump water from below the surface into the air producing a decorative spray pattern. The water spray produced shall transfer oxygen from the atmosphere into the water body. The pumping action shall create mixing within the water body and distribute the dissolved oxygen.

### ***B. Motor Specifications***

The motor shall be a water-cooled, water-lubricated, no maintenance design specially manufactured to operate completely submerged. It shall include a stainless steel outer housing, waterproof electrical connector assembly, hermetically-sealed windings and stainless steel shaft. All single phase motors shall incorporate a built-in lightning arrester to prevent damage due to lightning strike. The motor shall be U.L. recognized and incorporate special thrust bearings to take up the propeller thrust load. The motor shall be \_\_\_\_\_ VAC, \_\_\_\_\_ phase, \_\_\_\_\_ hertz.

### ***C. Propeller Pump Specification***

A non-fouling, high-efficiency, axial-flow propeller pump shall be used. The propeller shall be precision cast stainless steel to assure it will not deform due to temperature changes and to maximize abrasion resistance. The pump housing shall be cast stainless steel for maximum resistance to corrosion and ultraviolet radiation. Plastic or fabricated pumps or propellers are not acceptable.

### ***D. Aerator Nozzle***

A nozzle shall be supplied to produce the appropriate spray pattern. The nozzle shall be designed so it can be easily removed without the need for special O-rings or seals. The nozzle shall be constructed from PVC, polypropylene or stainless steel to assure maximum abrasion and ultraviolet resistance. Each fountain shall be supplied with all available nozzles.

### ***E. Float Specifications***

Floats shall be one-piece molded polyethylene with ultraviolet inhibitor. Special molded areas for tie-downs and lighting packages shall be included. Each float shall be filled with water resistant rigid foam. The pump and motor assembly shall mount directly to the float and be easily removed for service. The float system shall incorporate threaded stainless steel inserts for decorative light attachment.

### ***F. Control Panel***

The standard control panel supplied shall be NEMA-4X rated and include starter, lockable fused disconnect, hand-off-auto switch, timer, ground fault circuit interrupter and space for additional components as requested. Custom panels supplied shall be NEMA-4X rated and all components used shall be UL and CSA recognized.

### ***G. Submersible Electrical Cable***

Each aerator shall be supplied with \_\_\_\_\_ feet (\_\_\_\_\_ m) of SEO type or equal submersible electrical cable.

### ***H. Mooring Line***

Each aerator shall be supplied with \_\_\_\_\_ feet (\_\_\_\_\_ m) of nylon mooring line adequately sized for the intended loads.

***I. Testing***

All aerators shall be tested in water with a nozzle installed prior to shipment to confirm proper operation and amp draw.

***J. Miscellaneous***

All components of the Floating Aerator/Fountain shall be manufactured in whole or in part in the United States.