

Effective: November, 2000

DIFFUSED AIR SYSTEM SPECIFICATION-SYSTEM 1

A. General

Each system will be complete and include all items needed to make a functioning system. This includes but is not limited to: one enclosure, air compressor and related equipment, all necessary valves, fittings and installation materials, micro porous diffuser, and weighted air hose. The system shall be configured so the compressor is positioned on shore while the diffusers is positioned near the pond bottom. Nothing shall be located on or near the water surface and no electrical or moving parts shall be placed in the water. The compressor shall be connected to flexible air tubing in order to provide air to the diffusers. The air exiting from the diffuser shall produce a rising plume of bubbles. When oxygen levels are low, you can expect transfer performance of more than 10 pounds of dissolved oxygen per horsepower per hour.

B. Air Compressor Equipment

A diaphragm compressor shall be mounted to a 1/5 HP, 100-115 volt, 60 Hz or 100-110 volt, 50 Hz, single phase main drive motor. Output shall be 1.7 CFM at 10 psig. Compressor motor shall include thermal overload relays, power cord and starter capacitor.

C. Air Hose and Couplings

Self sinking poly air hose shall be supplied specific gravity shall be at least 1.85 assuring it sinks even with air flowing. Hose-to-compressor, hose-to-hose and hose-to-diffuser connections shall be a combination of friction fittings and stainless steel hose clamps.

D. Compressor Enclosure

Each system includes one high-strength, weatherproof, outdoor cabinet, with cooling fan, which houses one compressor as described in above sections. Cabinet cover shall be secured by tamper-proof bolts. Cabinet shall include sound absorbent lining to limit noise to 70 dB.

E. Diffusers

One diffuser manifold shall be supplied. Diffusers shall be non-clogging and all materials corrosion resistant, non-moving and maintenance free. Diffusers shall be engineered to utilize laminar flow principle in conjunction with specified air compressors and air hose.

F. Cold Weather Operation

The complete diffuser system shall be designed to operate year- round without the need for separate heaters.