

DEEP-AIRE SUBSURFACE AERATION SYSTEM SPECIFICATIONS PAGE 1

1. GENERAL

- 1.1 The following specifications direct attention to certain required features of the design package, but do not purport to cover all details entering into the design, construction, and/or installation of the equipment.
- 1.2 Furnish ____ subsurface aerators. Each aeration system shall consist of an on shore rocking piston compressor, weighted PVC air tubing and a subsurface air diffuser.

2. PERFORMANCE

- 2.1 The subsurface aeration system shall deliver air to the bottom of the water impoundment. The air is produced by an on shore compressor through a PVC air tube and dispersed through a rubber membrane diffuser. The compressed air shall be dispersed as fine bubbles as defined by the U.S EPA report.

3. ROCKING PISTON COMPRESSOR

- 3.1 The compressor shall deliver ____ brake horsepower and shall be wired for ____ volts, ____ HZ, single phase service.
- 3.2 The ____ horsepower compressor shall produce ____ CFM at ____ amps on ____ volt service up to 21.7 PSI.
- 3.2 The compressor shall be constructed of light weight die-cast aluminum.
- 3.3 The compressor shall be of the oil –less operation design.
- 3.4 The compressor bearings shall be of the permanently lubricated design.
- 3.5 The compressor cylinder shall be hard coated for wear resistance.
- 3.6 The compressor shall be provided with a 40 PSI relief valve.
- 3.7 The compressor shall be provided with a replaceable air filter.

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4. AIR DIFFUSER

- 4.1 Furnish ____ air diffuser(s) complete with ____ single head EPMD rubber membrane or ____ double head EPMD rubber membrane with base.
- 4.2 The air diffuser shall consist of a mounting base and rubber air membrane.
- 4.3 The base shall be made of HDPE molded plastic.
- 4.4 The base shall be hollow with locking fill plug to allow weighted substrate to be added to sink diffuser.
- 4.5 The air membrane shall made of EPDM rubber.
- 4.6 The air membrane shall provide air dispersion as uniformed fine bubbles up to 3 CFM air flow.
- 4.7 The air diffuser shall have a check valve to prevent water from entering the air tube when not in operation.

5. AIR TUBE

- 5.1 Furnish _____ 100 foot rolls of ____ diameter air tubing.
- 5.1 The air tube shall be manufactured from flexible PVC tubing.
- 5.2 The air tube shall be weighted to allow air hose to sink to the bottom.

6. VIBRATION AND NOISE

- 6.1 The compressor normal operation noise level shall be less than 70dp.

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7. DELUXE SYSTEM

- 7.1 Furnish ____ Deluxe Deep-Air system(s).
- 7.2 The deluxe system shall consist of the rocking piston compressor mounted in a lockable steel cabinet, a cooling fan, valved outlet header, 0 – 50 liquid filled pressure gauge and electrical outlet box.
- 7.3 The lockable steel cabinet shall measure 16.5” wide x 22” length x 19” height.
- 7.4 The lockable steel cabinet shall be 14 gauge galvanized steel with a powder coat finish.

8. OPERATION AND MAINTENANCE MANUAL

- 8.1 Operation and maintenance manuals shall be furnished before start up of the equipment.

9. WARRANTY

- 9.1 The Deep Aire subsurface aerator has a one year limited warranty against defects in material and workmanship.