



ASA Subsurface Aeration Systems

PRODUCT BENEFITS & TECHNICAL SPECIFICATIONS



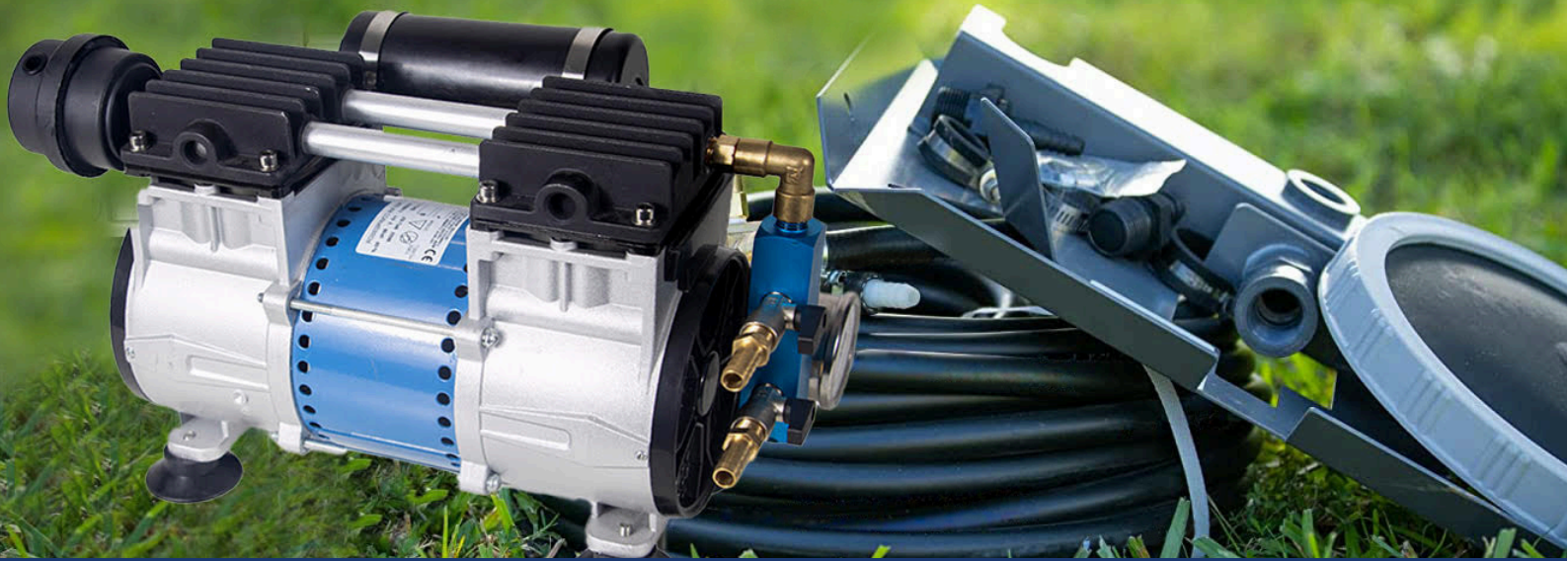
ASA 1/4hp Aeration Kits

- 2 Outlet Manifold
- Air Filter
- 1-2 Single Diffusers & Stainless Steel Base
- 30.5m x 3/8" Weighted Aeration Tubing for each diffuser

Technical Specifications

Model	HC100A-1
Voltage	220V
Power (0-2 Bar)	130W - 187W
Max CFM	1.8
Max Flow L/min	48L/min@0bar 30L/min@2bar
Dimension	198*95*144mm
Net Weight	4.26kg
Use Environment	-5°C - 40°C
Diffusers	1-2 Single diffusers
Noise	≤55dB(A)
Max Pond Size	2 acres
Max Diffuser Depth	1 Diffuser - 8m 2 Diffusers - 4m
Cabinet with Cooling Fan	Optional





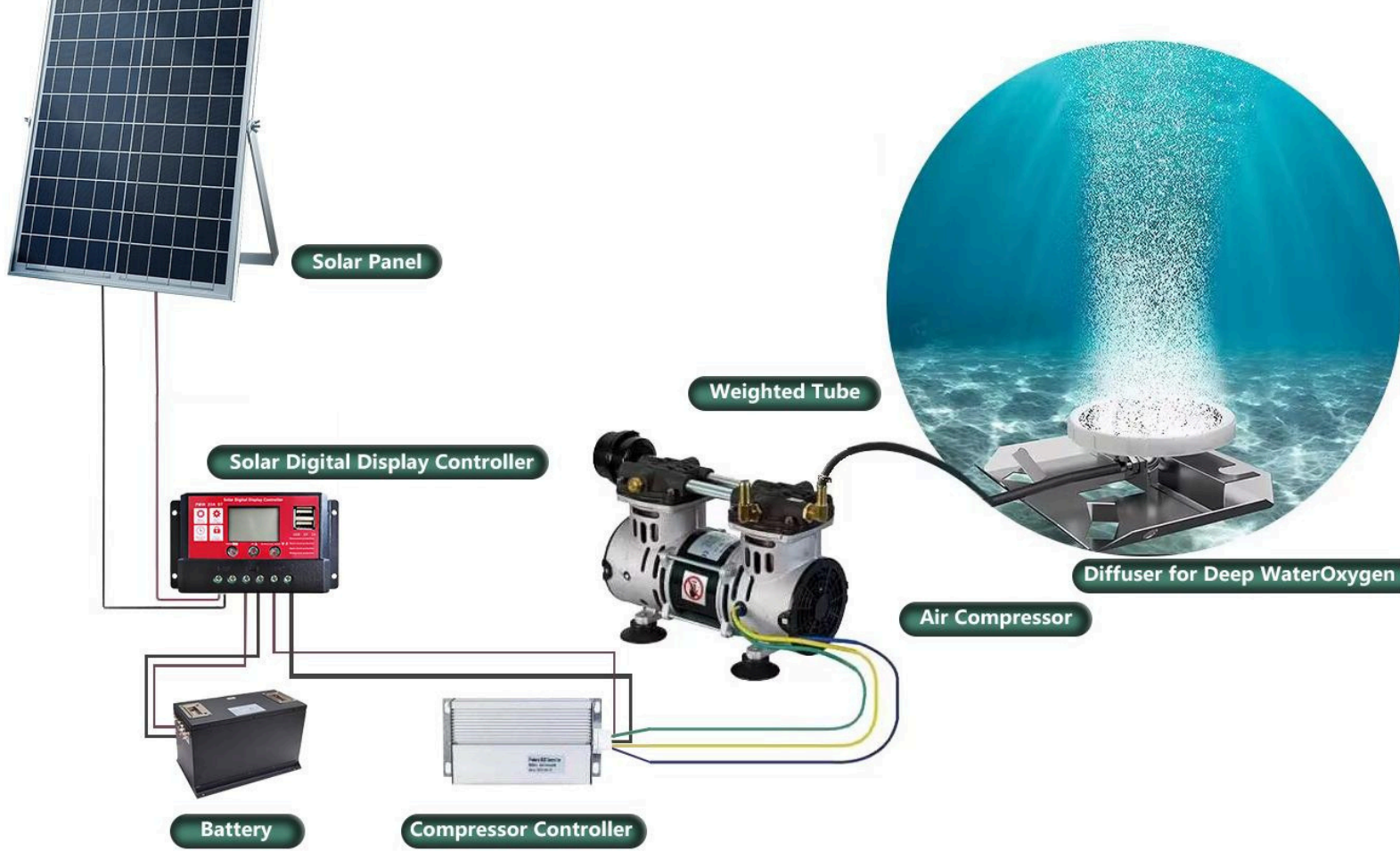
ASA 3/4hp Aeration Kits

- ☑ 4 Outlet Manifold
- ☑ 3-4 Double Diffusers & Stainless Steel Base
- ☑ Air Filter
- ☑ 30.5m x 3/8" Weighted Aeration Tubing for each diffuser

Technical Specifications

Model	HC550A-1
Voltage	220V
Power (0-2 Bar)	480W - 550W
Max CFM	4
Max Flow L/min	100L/min@0bar 76L/min@2bar
Dimension	276*130*190mm
Net Weight	8.86kg
Use Environment	-5°C - 40°C
Diffusers	3-4 Double diffusers
Noise	≤55dB(A)
Max Pond Size	4 acres
Max Diffuser Depth	15m
Cabinet with Cooling Fan	Optional



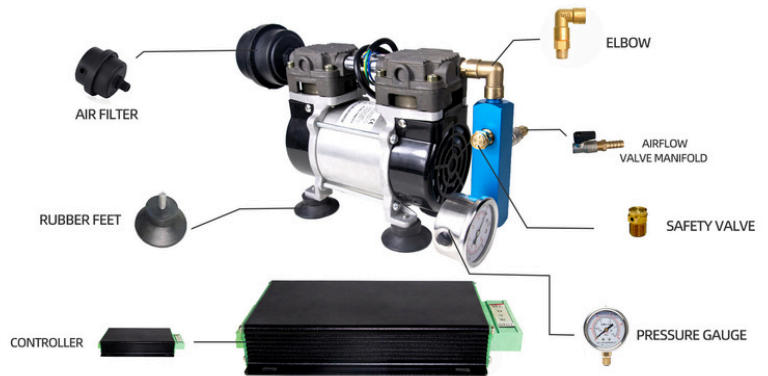


ASA 1/2hp Solar Aeration Kits

- ✓ 2 Outlet Manifold
- ✓ 1-2 Single Diffusers & Stainless Steel Base
- ✓ Dedicated battery system. Battery not supplied and to be sourced separately.
- ✓ Air Filter
- ✓ 30.5m x 3/8" Weighted Aeration Tubing for each diffuser

Technical Specifications

Model	HC280D-CAB
Voltage	DC12V /24V /48V
Power (0-2 Bar)	150 - 320W
Max CFM	3.1
Max Flow L/min	90L/min@0Bar 75L/min@2Bar
Dimension	550*450*690mm
Net Weight	28.5kg
Use Environment	-5°C - 40°C
Diffusers	1-2 Single diffusers
Noise	≤55dB(A)
Max Pond Size	2 acres
Max Diffuser Depth	15m
Cabinet with Cooling Fan	Included





The Benefits of Subsurface Aeration

Where there is man-made water retention, there is typically going to be a need for aeration and water treatment.

The engine that drives everything within a body of water is the presence of oxygen and beneficial bacteria in proper levels. A dam or lakes condition deteriorates when its bottom environment cannot support aquatic life. The bottom is where the most oxygen is consumed and the farthest from the surface where it is replenished. Without adequate oxygen at the bottom, beneficial bacteria's ability to break down the organic waste is greatly reduced. This results in increased layers of sediment (sludge) along the pond bottom. This increase in nutrients promotes algae and poor water quality. Simply put, without oxygen a pond cannot clean itself!

The ASA Aeration Systems provide maximum aeration and circulation to lakes, dams and large ponds. The system utilises a shore-mounted Rocking Piston Compressor to deliver air to subsurface diffusers on the lakes bottom. The resulting column of rising bubbles circulates oxygen-rich water, eliminating stratification and improving the overall condition of your pond or lake. With increased oxygen and circulation, excess nutrients in the pond or lake are metabolised, resulting in cleaner water and less muck.

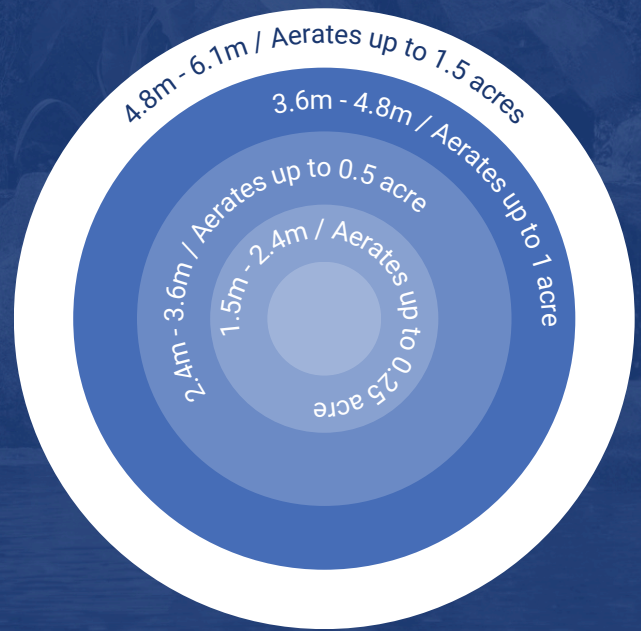
Aeration circulates the water and increases oxygen, providing long-term benefits and reducing overall maintenance. Combine the Aeration Systems with the Aquascape Inc. Lake Treatments to achieve a clean, clear, thriving aquatic ecosystem.

The benefits are numerous:

- ☑ Improved water clarity
- ☑ Reversed algae effects
- ☑ Improved natural bacteria populations
- ☑ Fewer aquatic weed problems
- ☑ Improved fish habitat
- ☑ Less organic material accumulation (sludge)
- ☑ Enhanced pond ecosystem (Nitrogen Cycle)
- ☑ Reduced surface scum build-up
- ☑ Elimination of foul odours
- ☑ Better swimming and recreation areas

Choosing the Right System Depth

The deeper an air diffuser is located, the more boiling action and the larger the area that will be aerated. The 1/4hp aerator would aerate only 1/4 of an acre if operated in 1.5m of water, while aerating up to 1-1/2 acres if operating in 5-6m of depth.



Air Diffuser Placement

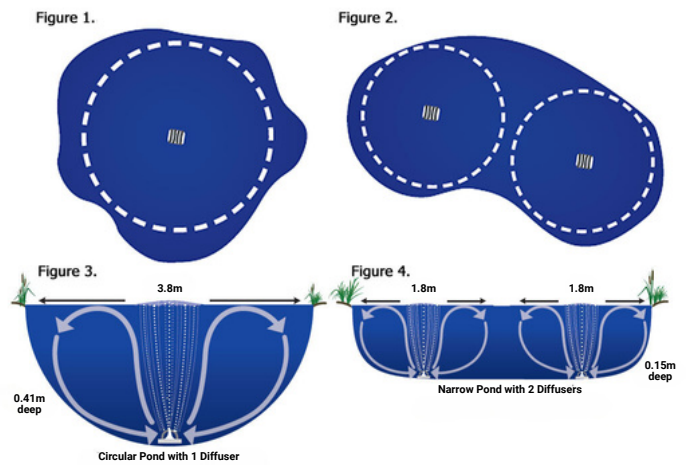
Shape

The shape of your pond also greatly influences the size and design of the aeration system. Round or circular shaped ponds naturally lend themselves to effective aeration. Usually, 1 diffuser placed in the center of a round pond will provide sufficient aeration. The bubbles rising from the diffuser produce a circular pattern once they spread out at the surface of the pond, creating ripples that radiate out to the edges of the pond. On the other hand, long, narrow ponds, or irregular shaped ponds often require 2 or more diffusers to effectively circulate the water in all areas of the pond.

In the diagram, the dotted circles represent the area that 1 diffuser will effectively aerate.

The circular shaped pond (figure 1) has 1 diffuser placed in the centre of the pond, which essentially covers most of the pond.

The long, narrow pond (figure 2), needs 2 diffusers placed strategically in the pond to maximise their effectiveness.



Customised Systems

The ability to customise a system is also available if hose or diffuser types need to be adjusted. Aquascape Australia can custom design an aeration system for almost any application. The type of compressor, the length of tubing, the number of diffusers, etc. can all be mixed and matched to give you a system to fit your exact needs.

Call our team for advice on the right system for your pond, lake or dam.