

Shallow water type LAKE-LYFTER system

POND CLEAN



■What is the LAKE-LYFTER system?

This system generates large up-down circulatory convection in stagnant ponds and lakes and pushes the bottom layer water to the surface layer, enhancing the natural purification capacity and purifying water quality. This large convection mixes bottom water and oxygen-rich surface water, increasing dissolved oxygen throughout the body of water, helping ecosystem activities, and promoting removal of organic matter and nutrients, and it suppresses the generation of algae and odors and exhibits a significant water purification effect.

■Application of POND CLEAN

- Suitable waters: Aquaculture pond, fishing pond, Reservoir
Ornamental ponds (garden, park, golf course, etc.)
- Water depth: 1.00m~5.00m
- Water volume: 500m³~25,000m³ / unit

■Effect of POND CLEAN

- Oxygen deficiency countermeasures: Odor and sludge accumulation suppression, fish aquatic organism activation.
- Nitrogen removal: Decomposition and removal of NH₃-N, NO₂-N and NO₃-N.
- Algae countermeasures: Suppression of accumulation and nutrient elution.



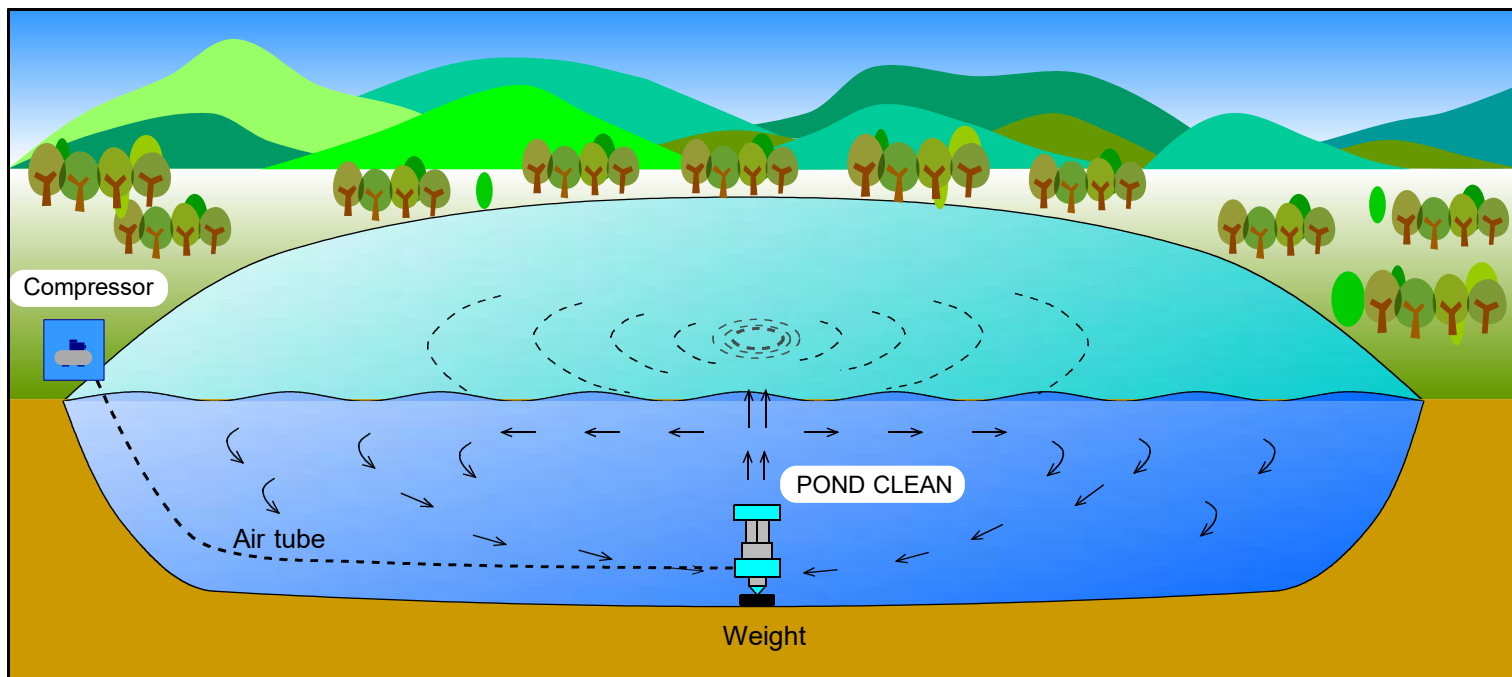
LP-15-0046



1. Slow convection occurs.
2. Algae growth is suppressed.
3. It enables to supply air in bottom layer.

■ POND CLEAN Works

The Pond Clean is a water purification device that adapts the LAKE-LYFTER system to shallow and small water bodies, so suitable for Gardens, Parks, Golf course ponds, Aquaculture ponds, Fishing ponds, etc..



■ Mechanism & Principle

The Pond Clean accumulates air from the ground compressor in the air chamber, and when it reaches a certain amount, it becomes an air bombs and blows out from the central opening at once.

At this time, the bottom layer water is absorbed from the lower water intake by reverse siphon action, and pushed up together with the in-cylinder water by the air lift phenomenon. The bottom water released from the top opening rises to the surface while entraining the surrounding water, and is mixed with oxygen-rich surface water to incorporate oxygen throughout.

By performing this series of operations intermittently, circulatory convection occurs throughout the water area, oxygen is supplied to the bottom layer, and the water temperature in the upper and lower layers is made uniform.

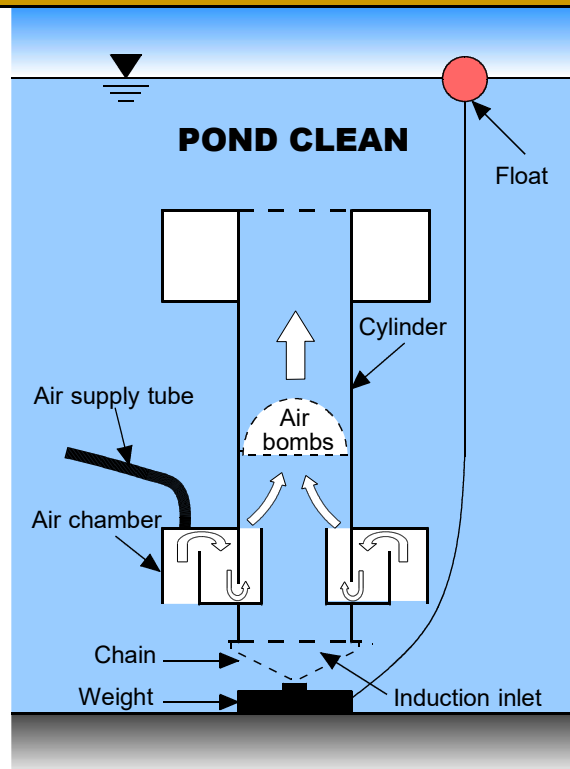
■ Advantage

- (1) A large amount of water is circulated with small energy, resulting in a large water purification effect.
- (2) Economical by intermittent operation of a small compressor.
- (3) Simple construction and high durability enable long-term use.
- (4) Installation is easy and daily maintenance is not required.

■ Specification

Model	Type	Caliber×Number×Length (m) (N) (m)	Water depth (m)	Water Volume (× 10 ³ m ³)	Compressor (kw)
LP-15-0046	Shallow-water	0.15 × 1 × 0.46	1.0~2.0	0.5~ 2.5	0.2
LP-10-0100	Shallow-water	0.1 × 4 × 1.0	1.5~3.0	2.5~10.0	0.4
LP-10-0150	Shallow-water	0.1 × 4 × 1.5	2.5~4.0	10.0~15.0	0.75
LP-15-0200	Shallow-water	0.15 × 4 × 2.0	3.5~5.0	15.0~25.0	1.5

* Depending on the installation conditions (water depth, water volume, site conditions, etc.), we will design and manufacture as a custom-made product.



■ Manufacture and Seller

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