

Creates aerobic and anaerobic fields and changes all organic matters into gas and water.

# Jarikko Decomposes Solid Organic Matters

## Features

- Decomposes all sludge and oil in Jarikko globes.
- The required installation cost is around 70% of the conventional activated sludge method.
- The maintenance administrative expense is around 10% of the conventional activated sludge method.

## Overview

(Technical principles, actions, etc.)

The Jarikko is a globe with a diameter of 10 cm and made with a 2- to 3-cm-large stone covered with resin. Jarikko globes are filled into appropriate facilities that are aerated from the bottom to make a large number of aerobic and anaerobic fields in the facilities.

In the aerobic and anaerobic fields, dissolved organic matters with a high biochemical oxygen demand (BOD) will be decomposed into gas and water, and anaerobic bacteria will perish in the aerobic fields while aerobic bacteria will perish in the anaerobic fields. The residual bacteria in the water will be separated, and the Jarikko globes will capture the bacteria flowing out of the water. The Jarikko globes will capture, dissolve, and change solid organic matters, i.e., suspended solids (SS), into dissolved organic matters after they flow out of the water.

Jarikko globes have been applied to 26 places for river purification. The first place has been unmanned, and yet it has been maintaining its initial functions for 17 years. The largest facilities have a processing capacity of 260,000 m<sup>3</sup> per day. Jarikko globes have been applied to nine places for factory effluent purification, which include large-scale facilities processing organic matters that have a 2,700-ppm BOD and 1,000-ppm SS, to reduce both the BOD and SS rates to 20 mg per liter. As a matter of course, no sludge will be drawn out of the Jarikko globes for further treatment.

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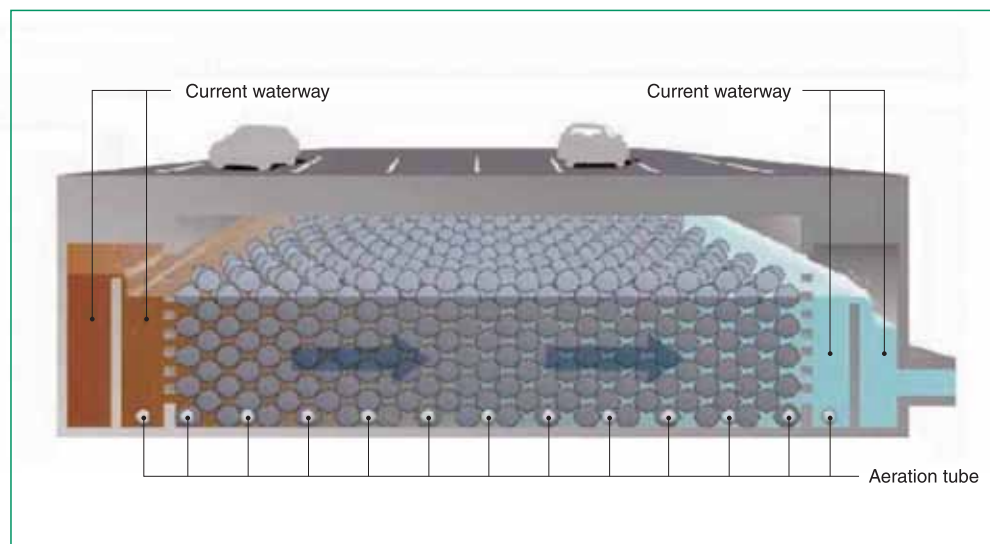
### Specifications

Size: 10 cm  
Porosity: 60% min.  
Compressive strength: 200 kg/f min.

### Filling

Approximately 1,400 Jarikko globes (weighing approximately 1 ton) are filled per cubic meter. (Water flow: Laterally)

Jarikko



Facility overview

## Introductory Track Record

- Presently, the application of Jarikko globes for river purification is considered in Korea, the Philippines, and China (Hangzhou).

## Effects

○ Jarikko treatment shows the following benefits.

- River purification: Purified water with a BOD rate of 3 to 5 mg/L will be obtained if the raw water in the river has a BOD rate of 20 to 50 mg/L.
- Factory effluent treatment: Jarikko globes can be applied to all types of effluent treatment discharged from food factories. Furthermore, Jarikko globes do not require maintenance, which is economical, and the quality of processed water is high enough so that it can be discharged into rivers. Jarikko globes are suitable to new food factories. Besides, existing aeration tanks using the conventional activated sludge method can be modified into Jarikko tanks.
- Sewage: A five-year experiment verified that Jarikko globes are very effective to sewerage treatment. The use of Jarikko globes for actual sewage treatment is under consideration now.

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