



Aquative

Waste Water Remediation

Professional biological treatment
with **Aquative MP**



Wastewater cleaning is the process of separating water from contaminants in a safe and economical way.



Filters, chemicals, and bacteria can all play a role.



Typical pollutants include sewage, fats, grease, oils, and other organic matter.



Aquative MP is designed for organic pollution scenarios including treatment plants, ponds, lagoons, and natural water bodies.



Aquative

How **Aquative MP** Works

The cleaning action of **Aquative MP** is biological. It works by decomposing organic matter into CO_2 and humus, helping convert pollutants into more stable end products.

Although each application may require a different operating strategy, such as dairy effluent, animal or human sewage, or aquaculture water, the principle of depuration remains the same.



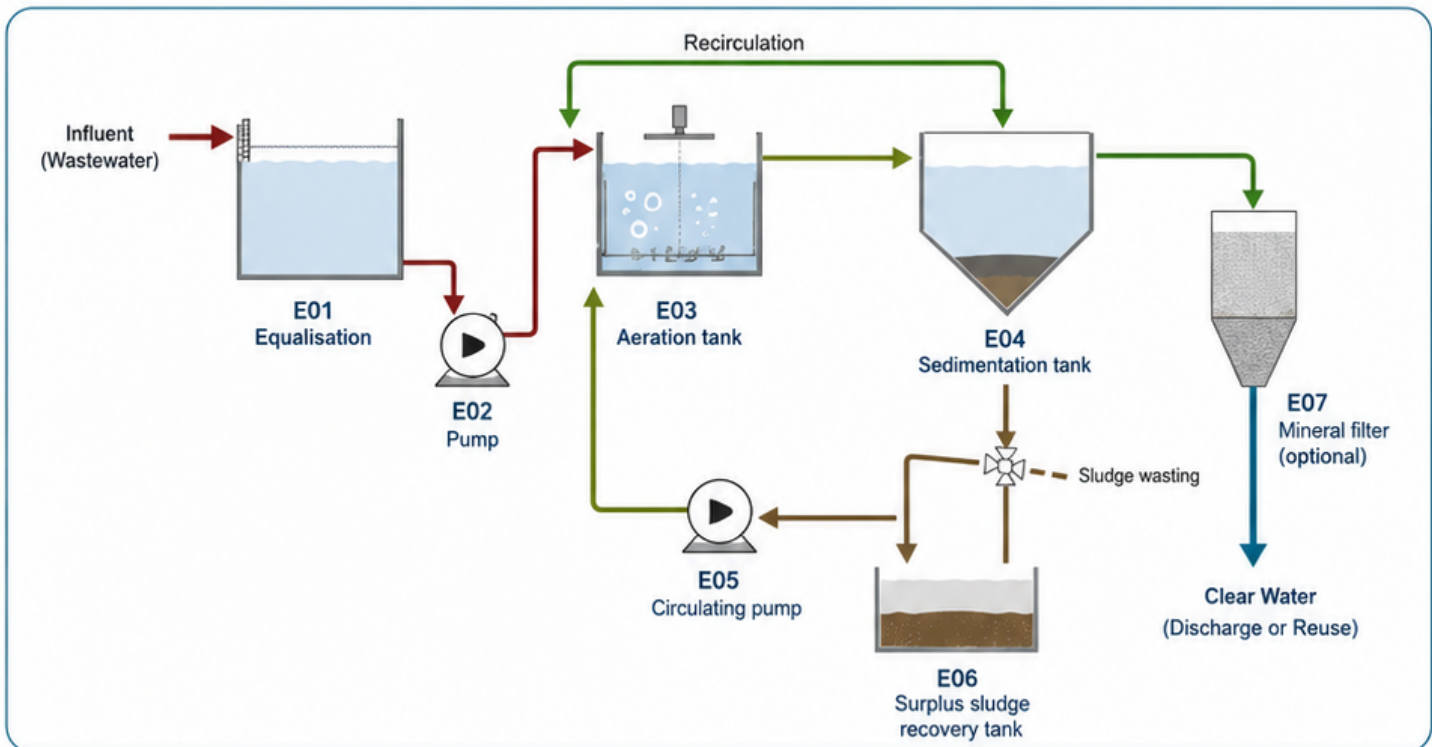
Aquative MP is an aerobic group of bacteria and requires an aerated tank when used in a treatment plant.

Principle of operation

The effluent source may include raw sewage, animal waste, organic industrial wastewater, polluted pond water, or aquaculture water.

Plant Components

-  **E01** Equalisation
-  **E02** Pump
-  **E03** Aeration tank
-  **E04** Sedimentation tank
-  **E05** Circulating pump
-  **E06** Surplus sludge recovery tank
-  **E07** Mineral filter (optional)



Process Operation and Treatment Performance

Aquate MP delivers effective biological treatment through a series of integrated stages. Each step is designed to optimize performance, ensure reliability, and support sustainable water outcomes.



1 Influent Handling

The effluent first enters equalisation tank E01 as a holding tank. Before equalisation, a grid or screening step is recommended to remove gross solids and floating matter.



2 Aeration Stage

The effluent is pumped by E02 to aeration tank E03. The tank should maintain adequate oxygen levels between 2 and 8 mg/L depending on the application. Around 2 mg/L may be sufficient for sewage, while higher oxygenation can be required for sensitive aquaculture applications.



3 Biological Action

Aquate MP is added to the aeration tank. Circulating pump E05 recirculates water between E03 and sedimentation tank E04.



4 Sludge Formation

Active sludge forms in E04 as COD and BOD are transformed into CO₂ and active mud. Once the active mud reaches around 60% by Imhoff tube measurement, the plant becomes a powerful biological filter.



5 Sludge Recovery

Any excess mud beyond that level is sent to E06. This recoverable biosolids stream may be valuable where regulations and contaminant limits permit.



6 Retention Time

16 hours is a typical design retention time for sewage treatment, while other effluents should be assessed according to COD and BOD loading. If more than 16 hours is needed, lagooning may be considered.



7 Polishing / Mineral Filtration

If very high clarity or heavy metal reduction is required, an optional E07 mineral filter can be added for polishing.



8 Application Scope

Aquate MP is able to help decompose multiple organic compounds including fats, grease, and oils commonly found in domestic and industrial effluents.

Dosage and Operating Guidance



Dosage Guidelines

Parameter	Guideline
 Start-up dose	10–15 g/m ³ /day
 Start-up duration	First 10 days or until active sludge is formed and reaches about 60% by Imhoff tube measurement.
 Maintenance dose	Approximately 10–15 g/m ³ /day
 Note	For high FOG load, use 30 g/m ³ /day. Dosage should be adjusted according to local conditions and wastewater characteristics.

The amount of **Aquative MP** required per cubic metre depends directly on the COD, BOD, and FOG load of the effluent. Typical dosing may range from 10–15 g/m³/day, with high FOG load applications requiring up to 30 g/m³/day. Dosage should be optimised for each site.



Key Benefits



Supports

biological reduction of organic pollution.



Helps establish

active sludge in aerobic systems.



Can assist

treatment of fats, grease, oils, and organics.



Suitable for

a wide range of wastewater and effluent applications.



Important Note

Treated biosolids (active sludge) and treated water should always be evaluated against site-specific conditions, potential contaminants, and applicable local regulations before reuse, land application, or discharge.

