

# Physical-Chemical Treatment Pilot Plant

Technology for water clarification and sludge settling

The goal of the treatment is the removal of contaminants to produce clean or reusable water, and a solid residue or sludge (mud) that may be properly managed or even reused.

**Dim Water Solutions proposes the use of an integrated system through its new Pilot Plant. Get identical results to a big-scale plant, but with the advantage of being able to rent it first. We will carry out testing and demonstration of feasibility of the technology. Will convince you.**



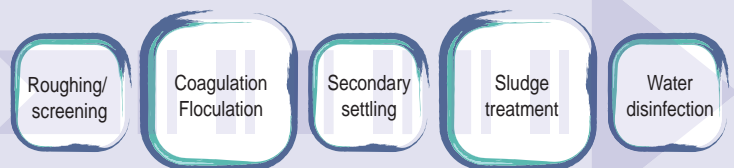
## 1. Physical Treatments

- Gravity separation (sedimentation)
- Oil separation
- Floatation
- Filtration
- Adsorption
- Solvent extraction
- Evaporation
- Distillation
- Centrifugation

## 2. Chemical Treatments

- Neutralization and pH adjustment
- Precipitation
- Oxidation
- Reduction
- Ion exchange

**Operation:** Removal of all possible contaminants from wastewater by physical separation (roughing bards, mesh filters, filter beds , etc. ) and chemicals processes (adding coagulants and flocculants for precipitation and settling of suspended solids and any other colloidal dissolved solids of small size).

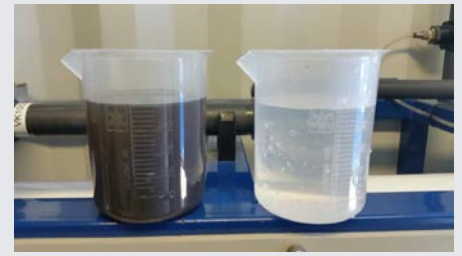


Pumping is performed by special pumps up to 80 mm of pipe diameters. Sludge filtration is carried out by press filter.

**Our system is valid to treat very fine particles, called colloids, having a high stability in water. They have a size of between 0.001 and 1  $\mu\text{m}$  and are an essential part of the pollution. Due to the high stability that present, impossible to separate by settling or flotation. It's not possible to separate by filtration, because would pass through any filter.**

## Advantages of Physical-Chemical of Dim Water Solutions

- Versatile, applicable to variety of aqueous streams.
- Can face the increasing pressure of legal regulation.
- Functional, easy to use, and high performance design.
- Balanced and efficient set of chemical reagents used to reduce selection costs.
- It can be removed 80 to 90% of the total suspended matter, 40 to 70% of BOD5 and 30 to 40% of COD.
- It allows you to reuse the treated water.



## Possible industrial applications of our solution:



Washing in the **olive sector** is a huge consumption of water, which because of its composition, should treat to reuse or throw.



The **wineries** have a strong dependence on water. With our tailor-made custom, you can save a lot of money recovering the water.



In the **fruit sector**, water is an indispensable resource. Wastewater have a high pollutant load and should be treated by law.



In the **meat processing** is generated wastewater with high concentrations of organic matter and must be disinfected before throw.



Most of the water used in the **lacteal sector**, it ends up as wastewater, so treat it and get it back is an investment with rapid return.



The wastes from the **salt industry**, the bitter, constitute a danger to the ecosystem, given its high toxicity, so its treatment is a key factor.

**For industrial water containing inorganic materials or impossible to treat by conventional biological treatments**