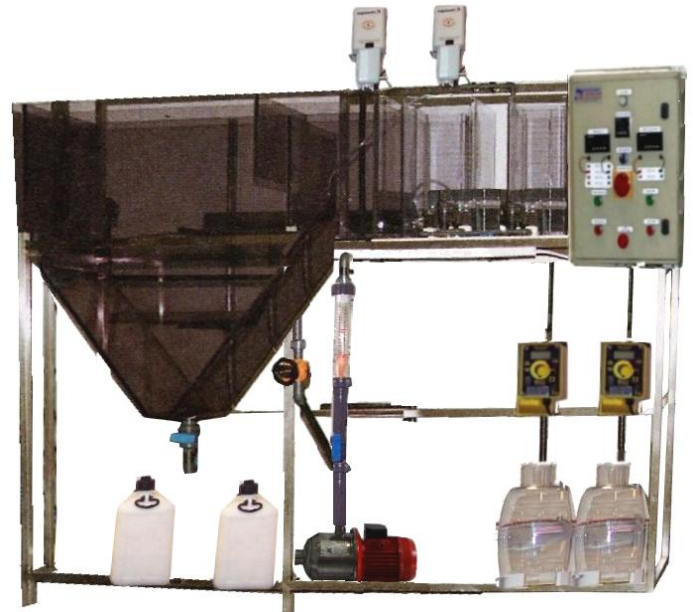


Effluents physical-chemical treatment unit

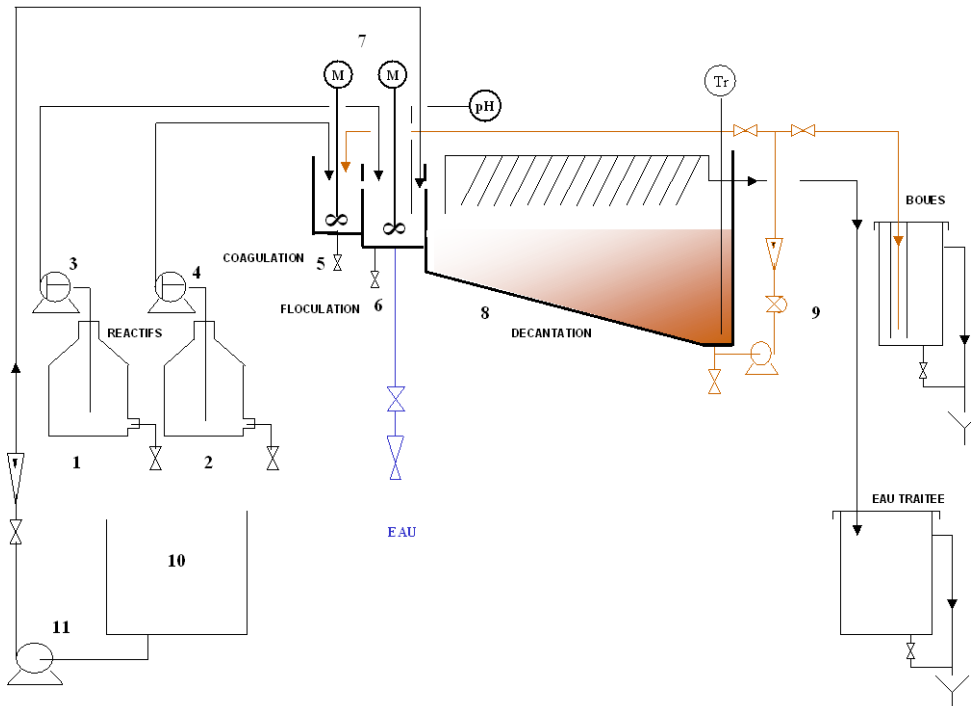
DESCRIPTION

- Determining the Chemical Oxygen Demand (COD) gives an indication of the treatment waste water requires before it can be returned to the environment.
- This unit can be used to demonstrate flocculation, chemical neutralization (confirmed by measurements) and decantation.
- This unit is easy to move into position because of its frame with small wheels.
- This unit is designed for various levels and fields of study.
- Technical documentation is provided.



SUGGESTED APPLICATIONS

- Illustration and understanding of the water treatment process
- Demonstrate principles using copper sulphate solution or waste water.
- Measurement of COD
- Study of flocculation
- Study of chemical neutralization of a water confirmed by a pH measurement
- Influence of the variation of the supply flow rate and sludge recycling
- Optimisation of the flocculation by Jar-test flocculator
- Determination of the staying time



1-2-Supply tank

- High density polyethylene
- Volume : 20 L

3-4-Supply pump

- Dosing pump with diaphragm
- Polypropylene body
- Maximal flow rates at 3 bar (45 psi): 8 L/h

5- Neutralization section

- Volume = 5 L PVC
- Agitator
- pH electrode and indicator for neutralization
- Temperature sensor (Pt 100 type) and indicator

6- Flocculation section

- Test with Jar test flocculator for the optimization of the quantity of flocculent or coagulant
- Volume 5 L – PVC

7- Agitators

- Variable speed: 0-2000 R.P.M. at 100 Ncm
- 316 L stainless steel gear and modulus with propeller

8- Decantation tank

- PVC
- Volume 100 L
- Recirculation rail and 30 %-fall for the outflow

9- Recirculation pump

- Centrifugal pump - P = 0.37 kW
- AISI 316 l stainless steel body
- Maximum flow rate: 1500L/h at 1.5 bar(21 psi)
- Rotameter - 0-500 L/h

10- Supply tank of waters to be treated

- High density polyethylene
- Volume: 150 Lwith low point of evacuation

11- Supply pump

- Centrifugal pump - P = 0.37 kW,
- AISI 316 L stainless steel body
- Maximuml flow rate : 1500 L/h at 1.5 bar (21 psi)
- Rotameter - 0-500 L/h

Option : Jar test flocculator – 6 stations to determine the quantity of flocculents or coagulants to treat and optimise waste waters.

UTILITIES

Electricity : 230 VAC – 50 Hz
Evacuation
Network water

DIMENSIONS

Length: 1800 mm
Width: 700 mm
Height: 1550 mm