

WASTEWATER TREATMENT PILOT WITH ACTIVATED SLUDGE



Non contractual photo

**SERVICE : POWER SUPPLY: 220V / 230V,
SINGLE PHASE, 1000W RECOMMENDED
PRODUCTS: ACTIVATED SLUDGE OR
ENZYMES SUBSTRATES
DIMENSIONS : 1700 X 700 X 2000 MM**

WEIGHT : 250KG

REFERENCE : MP43

This pilot presents the process of elimination of carbon, nitrogen and phosphorus pollution by microbiological route. It works by contacting the water to be purified with a bacterial floc in the presence of O₂ followed by a phase of separation of this floc. It is an "activated sludge" treatment process. The maximum purification efficiency will be sought by varying: mass and volume loading; age of sludge; the quality of bioflocculation; ventilation

Technical specifications :

- A tray with lid and on wheels
- A ventilation basin with two levels of overflow with lid
- A variable speed stirrer, with display
- Aeration set with a ceramic air diffuser
- An air compressor and its air flow meter
- A peristaltic pump for the supply of variable flow substrate on a sequencer and its flowmeter
- A basin conical bottom of decantation
- A dissolved oxygen measuring probe and its transmitter
- Threshold regulation of the aeration controlled by dissolved oxygen measurement
- A combined pH / ORP measuring probe with its transmitter
- A control cabinet grouping the M / A controls of the pump, compressor and agitator. The cabinet includes the oxygen sensor transmitter the pH / ORP transmitter
- The connections are made of PVC and the assembly is mounted on stainless steel frame, aluminum nuts.

OPTIONS :

Option 1: secondary settling tank. This option is recommended for using treated water in a drinking water system. Option 2: agitation system in the feed tank comprising: a circulator and a level probe. This option is recommended if the solution to be treated has a high rate of suspended matter. Option 3: sludge recycling. This option is recommended for a long-term process. Option 4: scraper in the cylindro-conical decanter. Option 5: Threshold pH control system consisting of: a can of basic solution, a diaphragm metering pump and regulator. Option 6: temperature control system comprising: an immersion heater and a regulator. Option 7: Data acquisition system including: RS485-ethernet gateway, Ethernet port, acquisition software and laptop PC. Option 8: remote monitoring system (supplied with a PC, PLC and software). Manual valves are replaced by solenoid valves.