COAGULATION PILOT FLOCCULATION DECANTATION

REFERENCE : MP50

Non contractual photo

SERVICE : STARCH - ALUMINUM SULPHATE 220 V SINGLE PHASE 50 HZ - 500 W
DIMENSIONS : 1000 X 2100 X 2400 MM

This pilot addresses the basic processes of the Physico-Chemical Engineering of water treatment. These coagulation and flocculation processes facilitate the removal of MES and colloidal compounds. Coagulation consists of removing the electric charges present on the colloids to form larger particles that can more easily sediment by flocculation. The removal is carried out in the subsequent solid-liquid separation step: decantation. Under the action of gravity, the solid particles heavier than the liquid sediment. This method makes it possible to clarify important flow rates of solution.
This installation offers the possibility of varying the volume flow of the sludge:
(water flow) x (% sludge decanted in a given time)
horizontal surface of the clarifier
and to implement the levels of reagents obtained experimentally through the jar-test.

Technical specifications :

- Bottle of flocculant
- Can of feeding of the coagulant
- Transparent PVC two-stage coagulation-flocculation tank
- Transparent PVC lamellar settling basin with reclining and retractable slats
- Preparation tank for synthetic solutions
- 2 Variable Speed Agitators
- Two pumps for reagent addition
- Agitator and feed circulator of the product to be treated
- 3 float flow meters (flocculant, coagulant, feed)
- Electrical control cabinet for pumps with protections, agitator control, reagent feed timers and sediment recycling

OPTIONS :

Option 1: pH measurement and control system, with 4-20 mA outputs, 2 thresholds, 2 fixed speed pumps Option 2: Turbidity measurement system in the settling basin with turbidity probe, transmitter and set of 2 solenoid valves Option 3: Decanted Sediment Recycling Pump and Flow Meter Option 4: pH Measuring System with Probe and Transmitter Option 5: Agitator for the coagulant can

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