

TWO-STAGE DECANTATION FLOCCULATION COAGULATION PILOT

REFERENCE : MP50ABC



Non contractual photo

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

This pilot allows the knowledge of 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 :

- Clear PVC feed tank of flocculant
- Transparent PVC feed tank of the coagulant
- Coagulation-flocculation pond and transparent PVC settling basin
- Preparation tank for synthetic solutions
- Variable speed stirrer
- Variable speed stirrer with speed display
- Two peristaltic pumps for adding reagents
- Sediment recycling pump
- Feed circulator of the product to be treated
- 4 flow meters (flocculant, coagulant, feed and recirculation)
- PH measuring system, with 4-20 mA outputs, 2 thresholds, 2 fixed speed pumps and
- 2 storage tanks for acidic and basic solutions
- Electrical control cabinet for pumps with protections, agitator control, reagent feed timers and sediment recycling

OPTIONS :

Turbidity measurement probe with in-line transmitter and 2 solenoid valves