

COAGULATION PILOT FLOCCULATION DECANTATION



Non contractual photo

SERVICE : 220 V - 50 HZ SINGLE PHASE - 500 W

DIMENSIONS : 2400 X 1000 X 1910 MM

REFERENCE : MP50AB

With two-stage coagulation-flocculation basin

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 :

- A transparent PVC feed tank of the flocculant
- A transparent PVC feed tank of the coagulant
- A two-stage coagulation-flocculation tank and clear Altuglas settling basin in one part with low level safety. Pools fill one to another by overflow
- Decanter with tilting and retractable plates
- A feed tray for preparing synthetic solutions
- A fixed speed agitator
- Two variable speed agitators (50-2000 rpm) with speed display:
- Three-sided stainless steel propeller flocculator
- Twisted stainless steel propeller coagulator
- Two pumps for adding reagents
- A sludge recycling pump
- A circulator for stirring and feeding the product to be treated
- 4 flow meters
- Electrical and control cabinet, IP 55 with emergency stop including control and protection of pumps and agitators, timer for sludge recycling