

PROCESS

SEMICONDUCTOR

SOLAR

PHARMA

POWER GENERATION

FOOD & BEVERAGE

PULP AND PAPER

CHEMICAL

OIL AND GAS

MINING

AEROSPACE AND TRANSPORT



FLOCOMAT®.T

Efficient high performance clarifier with optimised flocculation





FLOCOMAT®.T by H+E facilitates solids separation processes

Multifunctional reactor concept

FLOCOMAT®.T is an optimised sedimentation process which ensures reliable solids removal and efficient sludge thickening featuring internal contact sludge recirculation, resulting in a smaller footprint and reduced chemical consumption.

Flocculation clarifiers are used for the purification of surface water and for the clarification of wastewater.

In the food and beverage industry, in energy generation, and especially in the pulp and paper industry, where high quantities of solids enter the wastewater, high performance solids removal systems are an important process step on the way to reliable wastewater treatment. Flocculation reactors cause the coagulation and flocculation of particles prior to the actual process of separating

the solids from the liquid (e.g. by sedimentation, flotation, filtration).

They facilitate and accelerate the removal of suspended solids and colloids from the water. Thanks to its integrated, multifunctional concept, the high performance clarifier FLOCOMAT®.T, developed by H+E, achieves highest efficiency in the class of sedimentations. It is an important preliminary step in various processes for ecologically and economically sound wastewater treatment and water recovery.

Benefits

Multifunctional flocculation reactor combining three functions in one unit.

FLOCOMAT®.T supports the flocculation by returning already flocced sludge. Higher floc density in the central part optimises the flocculation.

The high solids concentration in the flocculation chamber leads to very good adsorption of fine particles.

Since flocculant is reutilised by being recirculated, the consumption of operating resources is reduced.

FLOCOMAT®.T has a special multi-blade scraper with integrated sludge pocket scraper, which reliably removes even very heavy sludge from the central sludge pocket and keeps the sludge outlet clear.

Result: As a consequence, you obtain wastewater which is reliably purified from solids and at the same time more densely thickened sludge, thus reducing the costs of sludge dewatering and disposal.



FLOCOMAT®.T – 1000 m³/h at Sappi Stockstadt, Germany

Different Functional Zones

FLOCOMAT®.T can be employed as a chemical-physical purification stage both for decarbonisation and surface water purification, and as the first purification stage to remove solids in industrial applications.

FLOCOMAT®.T has three functional zones serving various processes:

Central flocculation chamber

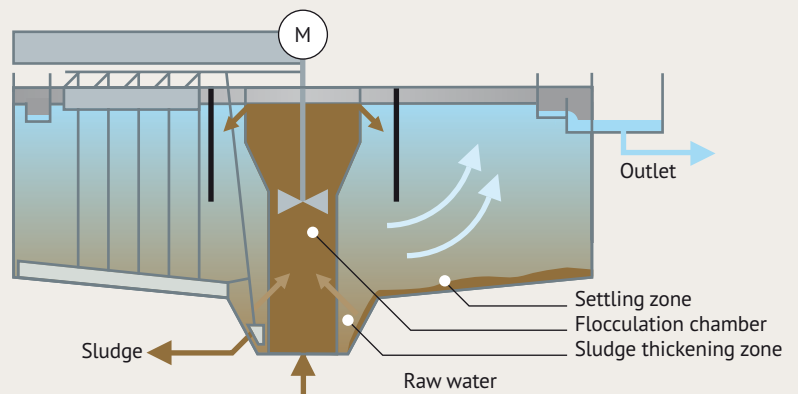
The central flocculation chamber is located in the center of the reactor and ensures the mixing of the recycled sludge with the incoming wastewater. Due to a consistently high sludge circulation rate, the system is practically unaffected by fluctuations in the inlet.

Settling zones

The peripheral settling zone extends over the entire cross-section of the basin. The central settling zone is located in the lower area where the deposited sludge is cleared into the sludge thickening zone by means of a special multi-blade scraper.

Sludge thickening zone

The sludge thickening zone is arranged circularly around the lower inlet cylinder of the central flocculation zone. The integrated sludge pocket scraper mobilises the thickened sludge so that the latter is for the most part conveyed back into the flocculation area via the central flocculation turbine and removed as thickened sludge to a smaller extent.



Further available process technologies

BIOFIT.H

Effective moving bed process: High-performance stage as the first biological purification of industrial wastewater.



BIOFIT.AC

High-performance anaerobic processes: First biological purification of highly concentrated industrial wastewater.



BIOFIT.CN

Flexible activated sludge process, which is characterised by its robust aeration systems AEROFIT®.V, AEROFIT®.D or AEROFIT®.M.



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