

PROCESS

SEMICONDUCTOR

SOLAR

PHARMA

POWER GENERATION

FOOD & BEVERAGE

PULP AND PAPER

CHEMICAL

OIL AND GAS

MINING

AEROSPACE AND TRANSPORT



BIOFIT[®].F

Highly versatile biological treatment
for moderately polluted wastewater





BIOFIT®.F biological treatment for industrial wastewater

A versatile biological alternative

From semiconductor manufacture to the petrochemical industry, a wide variety of industrial sectors require the most efficient methods for the purification of low to moderately loaded wastewaters. The separation of solids is required, as is the elimination of carbon or nutrients.

Due to its extraordinary adaptability in all kinds of applications, BIOFIT®.F provides a truly versatile alternative to the traditional activated sludge process. Following the initial separation of solids, it handles the complete aerobic

biological wastewater treatment process prior to discharge into the receiving water course. BIOFIT®.F uses the parallel flow principle of liquid and vapour phase in a procedurally and operationally superior manner.

Benefits

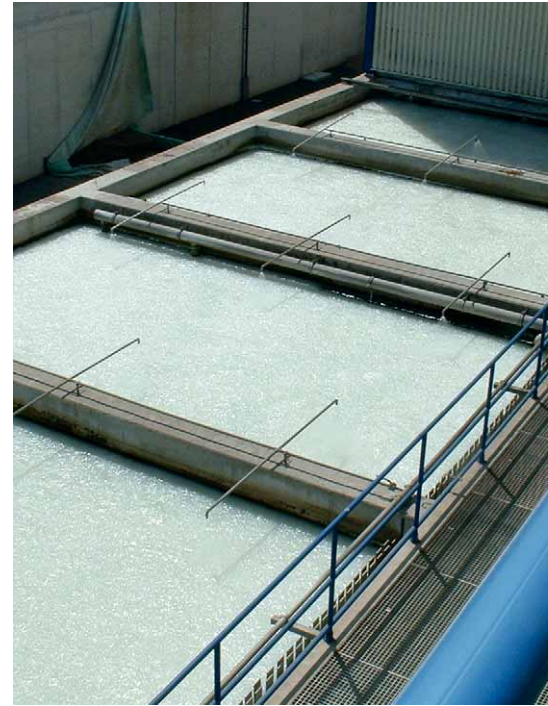
Since it combines the processes of biological filtration and retention of the biomass, a BIOFIT®.F plant requires very little space. In addition, odour and noise emissions are reduced to a minimum.

The AEROFIT®.V nozzles, specially developed by H+E, ensure the uniform supply of oxygen, even at low process air speeds. Therefore BIOFIT®.F filters operate with low power consumption.

The precise design of the filter material for each individual case and the exact adaptation of processes by the process specialists of H+E both guarantee the highest biological conversion rates and the best filter performance at all times.

Individually designed rinsing programmes enable accurate monitoring and regulation of the sensitive biofilms in every plant.

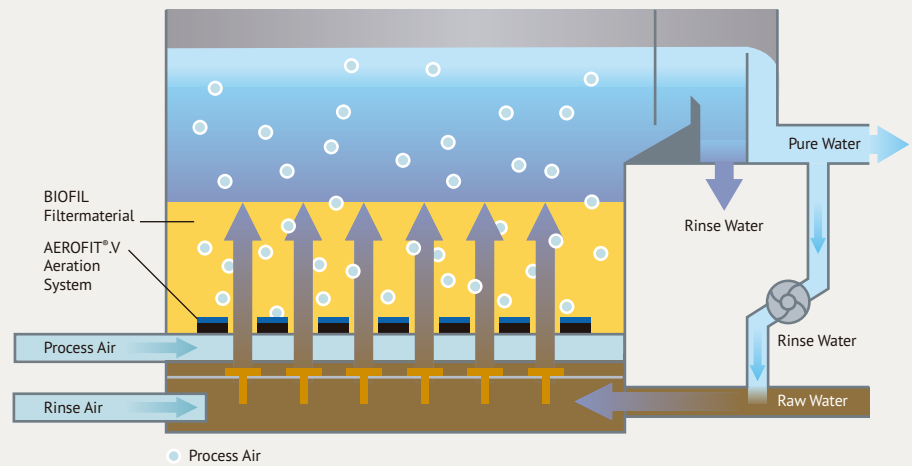
The modular and highly compact construction of a BIOFIT®.F system enable infinitely variable expansion to larger wastewater treatment plants as well as easy integration into existing plants.



BIOFIT®.F in operation for a customer in the paper industry

Process components

The heart of a BIOFIT®.F system is an up-flow biological filter containing three treatment phases for the various harmful substances in the wastewater stream.



The solid phase is a biofilm growing on top of a special grainy filter material. In this biofilm, dissolved substances in the wastewater are degraded, whilst suspended particles are adsorbed at the same time. The lifetime of the filter material can reach twenty years or more if the plant is competently operated.

The liquid phase is the wastewater, which circulates around the filter material, flowing from bottom to top.

The gaseous phase is the process air, which also circulates around the filter material, from bottom to top, and supplies the biofilm with oxygen.

In order to ensure that operation of the BIOFIT®.F plant is optimized, the filter material, the nozzles within the BIOFIT®.F unit, the rinsing programme and the software are both designed and matched up correctly. This will ensure that the system operates at peak efficiency at all times.

Further available process technologies

AEROFIT®.V

Developed by H+E specifically for use in moving bed reactors the AEROFIT®.V medium-bubble aeration system is the specific choice for the heavy duty operation of processes like BIOFIT®.H.



FLOCOMAT®.T

As a preliminary stage of the BIOFIT®.F process, for example in the paper industry, a FLOCOMAT®.T contact sludge clarifier is the recommended choice for the separation of solids from wastewater.



FLOTTOPAC®

For preliminary treatment of wastewater with high oil and fat content, often seen in the food and beverage industry use of the FLOTTOPAC® flotation module instead of FLOCOMAT®.T



Note:
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THE ENVIRONMENT SAYS: THINK BEFORE PRINTING

