

APPLICATIONS

Raw water treatment

Almost all industrial processes require water. We understand the variability of raw water quality whether it be town's water, bore water, river water, lake water or sea water. We also understand the operational problems and the cost increase that can occur when raw water quality is not suitable.

Viking filter is therefore tailor made to fit your needs for raw water treatment and ideal to implement in an early stage to filtrate the incoming raw water. Further treatment depends on the required quality and needs.

We have several different applications i.e. where the internal filter unit is implemented in concrete basins/channel systems or complete free standing units, all depending on the existing conditions on site and customer requirement.

Stock preparation

Recovering fibers from the rejects of installed equipment in the PM stock preparation area, i.e. after pulpers, coarse screens, HD/LD cleaners, thick stock screening etc. all depending of the process lay-out and design.

Fiber lines in pulp mill

Treating the filtrate after screw presses and other equipment in the fiber lines, recovering fibers and clarified water for re-use in the process. We use several different materials that can withstand the aggressive environment.

Fibre, water, filler and chemical recovery from White Water system

The Micro filter is ideal for recovery of fibers, Super Clarified White Water, filler, and chemicals from the white water system. Instead of adding cold fresh water, fillers, chemicals and fresh fibers you can easily recycle it back into the process, reducing the size and load on equipment downstream the process and thereby saving a lot of money

HBX dilution system

A headbox dilution system needs clear dilution water to maintain its function and prevent its regulating valves from getting stuck or clogged. We use a fine micron cloth that guarantee that no fibers pass through that can disturb the function.

PM shower water system

The mechanical filtering procedure with its fine mesh cloth assures there will not pass any long fibers that will end up plugging the shower nozzles in the paper machine, this will avoid a lot of unnecessary sheet brakes, stop for cleaning and maintain a high efficiency and production on the paper machine.

Polishing after vacuum pumps, DAF and disc filters

The Micro filter is often used as a polishing “police” filter after existing equipment such as DAF units and disc filters. DAF and disc filters has another working principle that always allow some of the long fibers to pass the unit and eventually ending up plugging spray nozzles, valves and other equipment in the paper machine. It is only a soft filtration micro filter that can assure that no long fibers can pass the filter and guarantee that the super clarified water is totally safe to reuse.

Broke system

The Micro filter can easily be used for thickening of diluted broke i.e. trim and broke from paper machine or from other broke pits and pulpers in the process. The broke pulp will normally be collected to a broke chest and thereafter be thickened to approx. 3 % consistency before added back to a common mixing chest or separate line/layer if multi head box.

Sealing and cooling water system

All equipment in a mill that needs sealing and/or cooling water has all specific requirements regarding content of impurities and particle sizes. We have the experience how to design these systems and can deliver micro filters in all sizes that will fit in to your specific process.

Primary effluent treatment

Our Micro filters can also be used for primary effluent treatment. The Micro filter has many advantages compared with the old traditional flotation and sedimentation basins: It has a very low dwell time and therefore **no rotten fiber** that gives gas, odor and other problems.

It requires little space, no drop leg, fast and easy to install in new or existing buildings. Volume is only a few percentages compared to flotation and sedimentation basins for same capacity.

Fiber and water can be reused if desired. By installing a Micro filter in effluent treatment gives a smaller and cost effective bio treatment plant. A Micro filter can also be installed as a complement to an existing bio plant and thereby decrease the load on the bio plant and letting it work at its optimum efficiency.

Bio sedimentation treatment

A micro filter can be used for thickening bio sludge before sending it to final thickening and following disposal. The filter is also ideal to install as a “police” filter after the bio treatment plant where it polishes the treated water before safe reuse or discharge to recipient.

Deinking plants

There are several places in a deinking plant where a Micro filter can be used. Excess water can be filtered and reused or sent back to PM area, recovery of fiber, chemicals, energy, deinked sludge can be thickened before final thickening and sent for brick production or land fill.

Liquor treatment

We have installed micro filters in liquor systems. By using special material, filter cloth and safety systems it is possible to filtrate hot liquor safely. Installing a micro filter before an evaporator gives less incrustation on the surfaces and thereby a higher efficiency.

Thickening

Micro filters can be used for thickening a variety of different filtrates, pulp, slurries and sludge.

Fractionation

Our Micro filters can be used for fractionation of i.e. long fiber, short fiber, fines, ash and filler.

Special applications

The Micro filter has, beside of the Pulp and Paper industry, also been installed in fish, wine, viscose/non woven, food and pharmaceutical industry.