

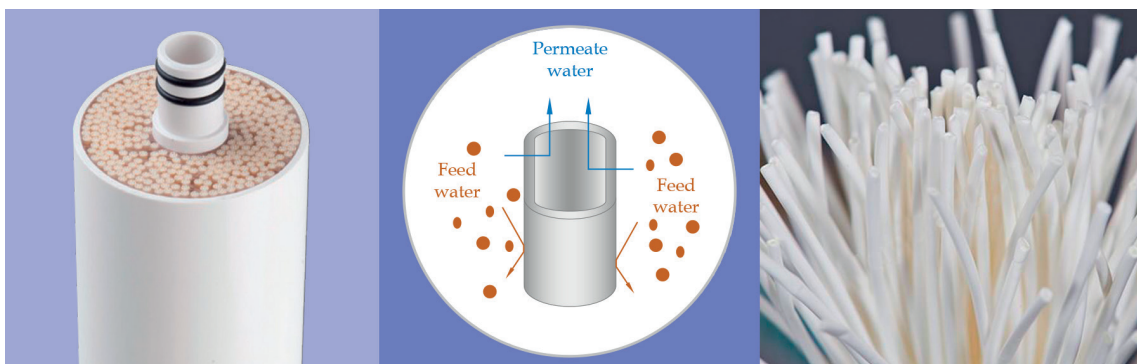
Water Recovery for Textile Industries

The road towards water recovery implies a series of treatments for the water, in order to guarantee the best quality of the final effluent, which is to be promptly reused in the production cycle.



First of all, Panta Rei provides a proper biological treatment in order to carry out the degradation and reduction of the main pollutants such as BOD, COD and suspended solids. Then, a filtration and preliminary treatment stage is set. So a membrane treatment follows the process line.

The first section is made of an **ultrafiltration** treatment to guarantee a fine removal of the suspended solids and protect the following membrane treatment steps. Then, a **reverse osmosis** section reduces the total dissolved solids concentration and all the residual pollutants in order to produce a high quality water whose characteristics make it suitable to be reused in the dyeing process, the boilers or any other application requiring high purity water.



It is possible to configure the reverse osmosis stage in order to obtain a larger recovery percentage, which ranges from 60% to 92% according if one, two or three steps are installed. Panta Rei provides a **process analysis** to determine the cost and benefits as a function of the recycled water amount, capital cost and power consumption.



We can treat the reject of the reverse osmosis membranes with natural, multi-stage or vacuum evaporators in order to close the water process loop with a water recovery system and thus guarantee **full compliance** even with the most stringent environmental laws.

The prompt solution to comply the imperative of recycle the water and dispose of the residual matter.



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