

Projects - Machinery - Engineering - Process Automation and Controls

Caustic recovery System



The client operates a large integrated Pulp Mill producing high quality grades from hardwoods

Our scope of work was the design and manufacture of a 3,500 gpd pilot plant installation utilizing ceramic and multiple membrane technology to allow for full scale industrial scale-up



Ceramic Filtration units

The location in an industrial park puts a premium in control effluent water discharge quality and emphasizes the need to maximize water recovery and minimize waste

The very extreme PH, clay and fiber contents provided also additional design challenges and careful construction materials specifications selection to meet technical needs and safety standards

To optimize results, we designed a pre treatment system with special backwash flush to remove fibers, specialized ceramic filters, and followed by a high efficiency multiple stage membrane system, to operate at high pressure and temperatures



Multistage Recovery unit

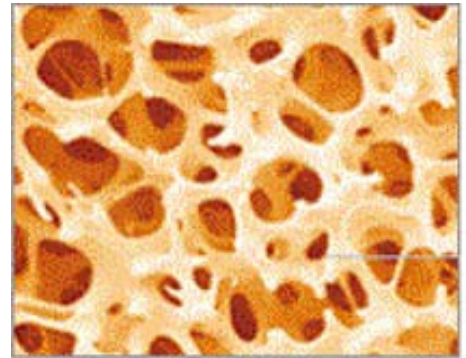


Inside view of high pressure cartridge

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A very modern and complete set of Ultra Sonic flow meters and digital analytical laboratory instruments was also provided to ensure constant process quality monitoring and raw materials inspection.



Indagro monitored the plant process parameters, chemical analysis and collection of samples during 60 days, and test programming was up-dated weekly with the client's team of engineers to further evaluate different operational loadings and materials.

The testing results exceeded expectations for recovery efficiency and allowed for industrial design of the new treatment system to meet all requirements

Indagro also supplied engineering design and installation / start – up services. By careful planning and support of our highly qualified engineers the system was up and running in less than 10 days