

# nx

## filtration



## direct Nanofiltration for Caustic Recovery

The recovery of concentrated and alkaline solutions offers significant sustainability benefits and reduced cost for many process industries, including the food and beverage industry.

Without a proper treatment scheme, valuable resources are being discharged as waste. Often additional chemicals need to be dosed to neutralize this waste stream.

### Our Solution

The dNF membranes from NX Filtration have an excellent stability at extreme pH levels. This unique property enables the recovery of concentrated solutions of sodium hydroxide in a single step.

	pH	NaOH (%)	COD (ppm)
Feed	>12.5	2.9	7,480
Permeate	>12.5	2.5	970
Concentrate	>12.5	>3.0	39,680



### Jetpur wastewater treatment plant in India



Pressure  
5 bar



Recovery  
80%



Flow  
1,500 m<sup>3</sup>/d

For the common effluent treatment plant (CETP) in Jetpur, India, NX Filtration delivered its direct nanofiltration technology for the recovery of caustic from the water intensive textile industries. With the dNF40 membranes, more than 80% of a NaOH rich stream is being recovered. The permeate is a clear solution, free of contaminants without loss of alkalinity. NX Filtration's technology not only saves spending on caustic for the textile industry, it also reduces treatment cost of caustic wastewater and ensures compliance with increasingly stringent discharge regulations.

