



# filtration

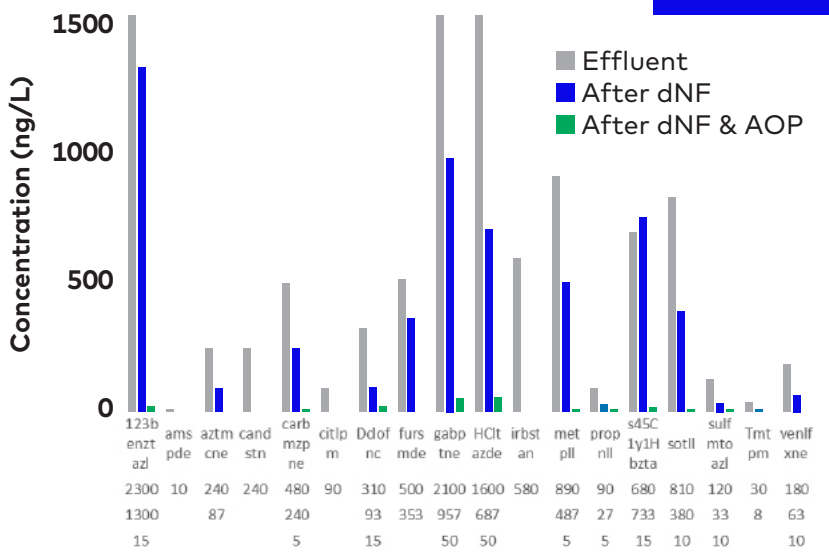


## direct Nanofiltration for WWTP effluent reuse

In water stressed regions the availability of fresh water sources is becoming a growing concern. Large quantities of potable water are still used for industrial applications, putting additional stress on the water supply. Utilizing other water sources is essential for a sustainable water infrastructure.

### Our Solution

Our dNF80 membrane is perfectly suited to remove most of the TOC (total organic content) from WWTP (wastewater treatment plant) effluent at high flow rates. Next to TOC, the dNF80 membrane even retains several of the micropollutants. The permeate is polished to provide pure water ready for reuse.



### Dutch Water Board Aa & Maas



Pressure  
5 bar



Recovery  
80-90%



Flow  
20-50 m<sup>3</sup>/d



Feed  
WWTP  
effluent

Water Board Aa & Maas, NX Filtration, Van Remmen UV Technology and Jotem Watertreatment demonstrated the viability of clean water production from municipal effluent from Aa & Maas' wastewater treatment plant in Asten, The Netherlands. This project demonstrates the benefits of the powerful combination of NX Filtration's hollow fiber direct nanofiltration (dNF) technology, together a ultra violet (UV) and hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) polishing step to produce a product with drinking water quality standards. This results in a >6 Log reduction of viruses and

bacteria, and a removal rate of more than 95% of all emerging substances of concern\*. The combination of NX Filtration's open dNF membranes and the UV/H<sub>2</sub>O<sub>2</sub> step substantially reduced the total operational costs.

\*As identified by the Dutch Water authorities

