nx filtration

Advanced hollow fiber membranes

for pure and affordable water

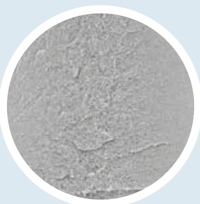
Clean and affordable water for all

NX Filtration is your membrane partner for sustainable water treatment. We produce advanced hollow fiber membrane modules for nanofiltration, ultrafiltration and microfiltration applications.

Our world is increasingly confronted with challenges around water scarcity and water pollution.
NX Filtration's breakthrough hollow fiber nanofiltration membrane technology is capable of selectively removing organics from polluted water, including micropollutants, color, antibiotics, PFAS, bacteria and and viruses, while saving up to 70% on energy consumption and 90% on chemical dosing. This has resulted in new and simple processes for the treatment of water, the reuse of wastewater and the production of potable water. We deliver robust products and innovative solutions enabling our partners to excel in sustainable membrane filtration applications.

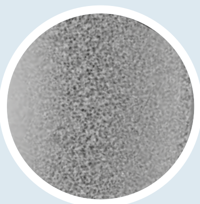
Our membrane portfolio

	Nano HFNF	Ultra UF	Micro MF
Filtration objective			
Suspended solids and turbidity	○ ○	○ ○	○ ○
Bacteria	○ ○	○ ○	○ ○
Viruses, cryptosporidium	○ ○	○ ○	
Proteine, colloidal silica, nano plastics	○ ○	○	
Color, humic acids, COD	○ ○		
Micropollutants, PFAS, divalent salts	○		
Cut off	400-800Da	10-150kDa	100-500nm
Typical Flux $(l/m^2/h)$	12-35	30-100	40-80
$MgS0_4$ rejection (%)	>76-91	n/a	n/a



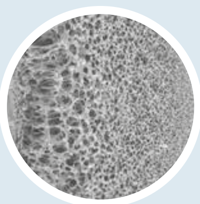
Nanofiltration

Worldwide unique hollow fiber nanofiltration concept, designed to efficiently remove organics from water: with simple pre-treatment and without chemical dosing



Ultrafiltration

The best choice for the removal of small particles, bacteria and viruses from water. Used for RO pre-treatment, potable water and wastewater treatment



Microfiltration

Ideally suited for high quality – low energy clarification of beverages, such as wine, beer and tea, as well as for dairy, sugar, biotech and pharmaceutical applications

Sustainable solution

Green chemistry

Our coating process for nanofiltration membranes applies water-based chemistry, in contrast to conventional solvent-based coating processes. Our membrane spinning process is highly energy efficient thanks to our unique in-line polymer mixing concept.

Nanofiltration

Our membranes realize significant energy savings and carbon footprint reduction during operation compared to conventional technologies such as reverse osmosis, adsorption (activated carbon) and oxidation processes.

Chemical free operation

Our solution avoids the use of flocculants and coagulants in pre-treatment and requires a very low chemical cleaning frequency.

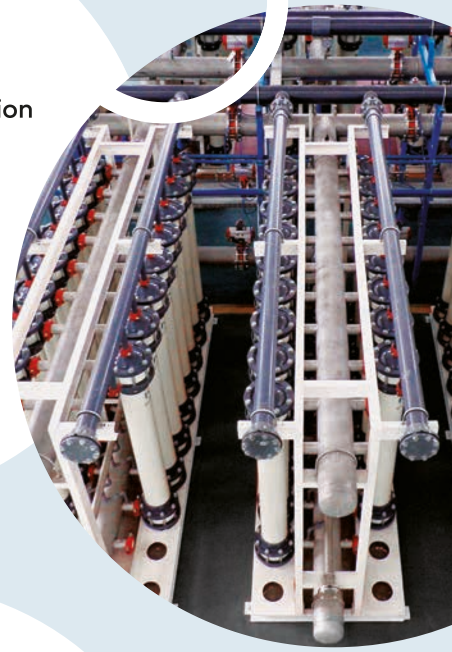
Applications

Industrial water

The NX Filtration membrane portfolio includes hollow fiber nanofiltration, ultra-filtration and microfiltration solutions for various applications in the food and beverage, textile, pharmaceutical and paper industries.

Drinking water

Our breakthrough nanofiltration membranes enable robust and sustainable drinking water pro-duction from polluted surface or well water by removing color, TOC, humic acid, micropol-lutants, medicine residues, pesticides, PFAS and other pollutants.



Municipal wastewater

Unlocking new sources for water, our hollow fiber nanofiltration membrane technology enables biologically treated wastewater.

Hollow Fiber nanofiltration concept

Our Nanofiltration membranes offer the unique combination of a low fouling hollow fiber configuration with the ability to remove Micropollutants from water. Due to the low fouling characteristics a strainer or sandfiltration or basic pretreatment is sufficient.

Hollow Fiber Nanofiltration (HFNF) provides the ideal solution for color and organics removal, recovery of cleaning solutions (NaOH recycling) and partial desalination and softening for industrial processes and municipal applications. Ideally suited for waste water re-use and for the polishing of surface water to drinking water standards, without affecting the mineral balance of the water.

Benefits

- Energy efficient
- Chlorine resistant
- Chemical free
- Low fouling
- Back washable
- Simple process

Unique and patented technology

NX Filtration's hollow fiber membranes are based on unique recipes and innovative patented production methods. The base material for our membranes is PolyEtherSulfone (PES). This provides an ideal chemical and thermal stability for use in robust filtration processes. Compared to other membrane materials, PES enables the production of membranes with very small pore sizes and narrow pore size distribution. We manufacture our membranes with a patented layer-by-layer process, where nano-scale layers are deposited on a membrane support. This method enables very precise and controlled rejection and permeability properties of the membrane.

Pilots

The complete range of our membranes is also available in laboratory and pilot scale modules that can be used in pilot installations, ranging from lab-scale to full-scale pilots. This provides the opportunity to perform a quick filtration and fouling test and select the best membranes for your application.

Drinking water certifications

kiwa certified ISO 9001

kiwa

kiwa NSF/ANSI 61

KTW

ISO 14001

ACS

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