nx filtration

Food & Beverage

Pure taste through sustainable membrane technology

About NX Filtration

Founded in 2016 and based in the Netherlands, we combine cutting-edge hollow fiber membrane technology with top-tier Food & Beverage process experts, backed by a proven global track record.

With global presence through 5 regional sales offices, over 50.000 membrane module production capacity, and over 100 references in Food & Beverage, drinking water, and in wastewater reuse.

Our portfolio

We develop and manufacture advanced hollow fiber membranes, for HFNF, UF and MF applications for the effective removal of organics and micropollutants — delivering energy-efficient, chemical-free water filtration, or efficient filtration of fluid foods.

Microfiltration

Ideally suited for high quality – low energy clarification of beverages, such as wine and cider, tea and beer, as well as for dairy and pharmaceutical applications.
Microfiltration is the backbone of our Food & Beverage business, but we also offer UF & HFNF membranes within our product portfolio. This enables NX Filtration to be the 1-stop provider for your membrane solutions. We are proud to offer a team of experts in both production & utilities within the Food & Beverage market.

Filtration objective	Nano HFNF		Ultra UF		Micro MF	
Suspended solids and turbidity	○	○	○	○	○	○
Bacteria	○	○	○	○	○	○
Viruses, cryptosporidium	○	○	○	○		
Protein, colloidal silica, nano plastics	○	○	○			
Color, humic acids, COD	○	○				
Micropollutants, PFAS, divalent salts	○					
Cut off	400-800Da		10-150kDa		100-500nm	
Typical Flux (l/m²/h)	12-35		30-100		40-80	
$MgSO_4$ rejection (%)	>76-91		n/a		n/a	

Beer Filtration

NX Filtration is your membrane partner for filtering beverages and treating water. We offer high quality microfiltration membrane modules for the food, beverage and pharma industries, as well as unique hollow fiber nanofiltration membrane modules to reduce your water footprint.

Our MF membranes replace traditional filtration methods, offering breweries consistent product quality, reduced operational costs and a fully automated, chemical-compatible process.

Specifications

- State-of-the-art hollow fiber beer filtration membranes.
- Plug & Play, fully certificated (FDA, CE, etc.) replacement module for BMF installations.
- Reduced CAPEX and OPEX, due to the robust and innovative hollow fiber membranes and design of the module.
- Offering strong sustainability benefits, including energy, chemicals and water savings.
- NX beer filtration modules - compatible with all commercially used cleaning agents used in the beer filtration processes.
- Close cooperation with local independent partners who are trained by NX Filtration, improving on-site assistance (local language) and reducing costs.
- By removing turbidity and unwanted components, beer membrane filtration enables the beer's true color and taste, supports foam stability, and ensures microbiological safety.
- Only PES/PVP membranes with the right pore size and morphology are accepted in breweries for full stream filtration
- PES/PVP membranes offer high temperature and chemical resilience.

kiwa certified ISO 9001

kiwa

kiwa NSF/ANSI 61

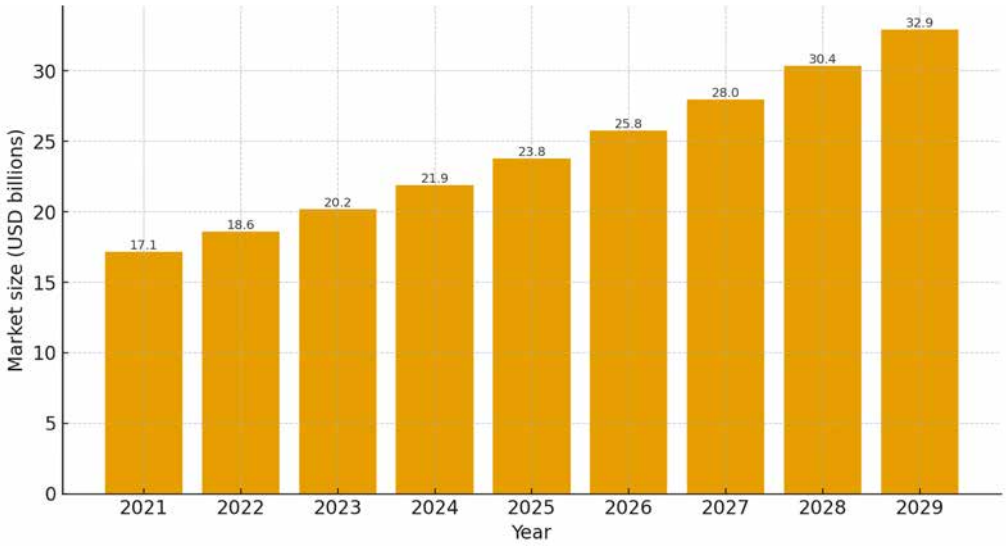
According to FDA and EU Food & Beverage regulations.

Beer De-alcoholisation

De-alcoholisation is a growing market in the beer sector. Healthier lifestyle choices and differing flavor notes are the drivers for this growth. Once a niche market, it is projected to reach over $32.9 billion by 2029.

NX Filtration's hollow fiber nanofiltration membranes are based on an innovative patented production method. PES membrane technology provides the chemical and thermal stability to use in such a filtration process. Offering a repeatable and reliable process for the de-alcoholisation of your beer.

Global Non-Alcoholic Beers Market Size (2021-2029)
USD billions (interpolated CAGR from industry source)



With the global non-alcoholic beer market set to exceed USD 32.9 billion by 2029, innovative membrane solutions like NX Filtration's nanofiltration (HFNF) modules play a key role in supporting breweries as they adapt to changing consumer trends.

Jopen BV

"We are very impressed; the pore size & structure of the membrane allows the removal of alcohol and water, without diminished flavor notes"

Wine and cider clarification

Clarification is an important primary step in filtering wine or cider. Yeast cells and other particles from fermentation and fining are removed to reduce turbidity and improve downstream filterability.

Preserving the integrity of flavor, aroma, and clarity is essential. That's why choosing the correct membrane for the clarification of your wine or cider is paramount.

Wine & Cider Filtration and Lees Recovery

Clarification is a vital step in producing high-quality wine and cider. During fermentation and fining, yeast cells and other suspended particles cause turbidity and can affect flavor and aroma. Clarification removes these unwanted solids, improving clarity and ensuring consistent downstream filtration.

During fermentation and aging, a layer known as lees — composed of residual yeast and fine particles — settles at the bottom of the vat. Traditionally, this mixture was discarded, often wasting valuable product. Lees recovery allows producers to reclaim the remaining wine or cider from the lees, improving overall yield and sustainability.

NX Filtration's microfiltration membranes, available in 1.5 mm and 3 mm diameters, are made entirely from PES, offering PFAS-free filtration and reliable performance.

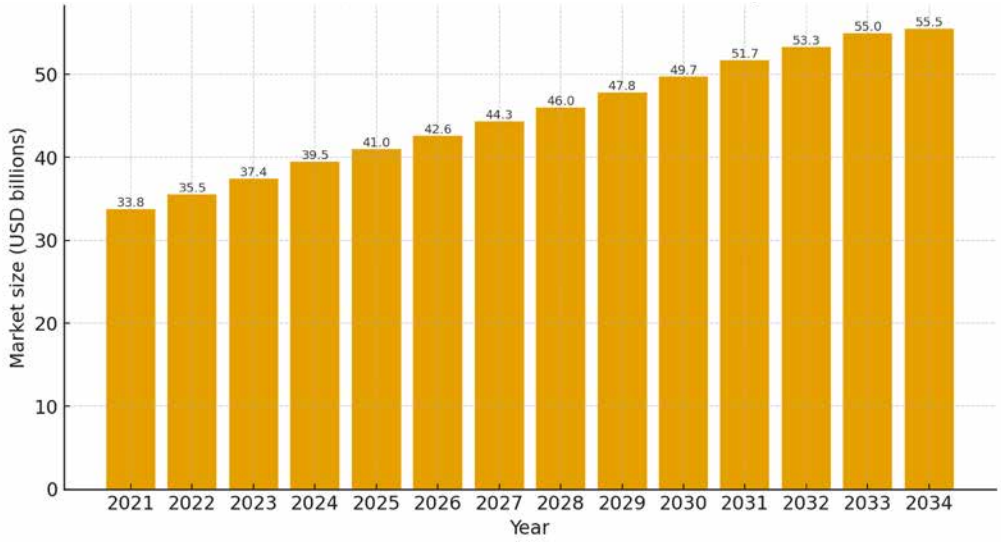
The robust hollow fiber structure ensures excellent clarification, gentle product handling, and easy cleaning — helping wineries and cider producers achieve the perfect balance of clarity, taste, and efficiency.

Tea Filtration

Sustainability has become a defining element of modern tea production. As consumers and regulators increasingly focus on environmental protection and social responsibility, tea producers face growing pressure to minimize their environmental footprint.

By reducing chemical inputs, conserving water, and optimizing processing efficiency, the industry is moving toward more responsible practices. NX Filtration's microfiltration membranes support this transition by offering reliable contaminant removal, low energy consumption, and PFAS-free operation — ensuring high-quality tea production with minimal environmental impact.

Global RTD Tea Market Size (2021-2034)
USD billions (corrected estimate from industry sources)



Global RTD Tea Market Outlook (2021–2034)

As the RTD tea market expands beyond USD 55.5 billion by 2034, producers increasingly focus on sustainable, chemical-free processing — perfectly supported by NX Filtration's PFAS-free membrane technology.

Modern tea production is evolving toward a more sustainable future. Producers are striving to reduce chemical use, minimize water consumption, and improve overall process efficiency — all while maintaining flavor and product quality.

NX Filtration's microfiltration membranes enable this transformation. They offer low energy and chemical consumption, reliable contaminant removal, and long-lasting performance under demanding process conditions. Made from PFAS-free PES, these membranes combine chemical robustness with full food-contact compliance, helping tea producers deliver a cleaner, more sustainable drink every time.

Process Water & Recycling

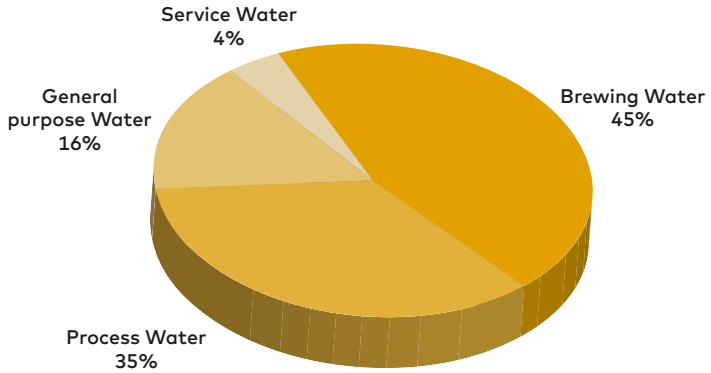
Water use in Food & Beverage

Water is an essential component in every stage of Food & Beverage production — from brewing and cleaning to cooling and packaging.

In breweries, for example, water accounts for up to 45% in brewing, 35% in process water, and 16% for general use. Managing this resource efficiently is not only vital for cost control but also for achieving sustainability goals.

As global water scarcity intensifies, producers are seeking smarter ways to reduce, reuse, and recycle process water. By recovering and treating wastewater streams, companies can minimize freshwater intake, lower discharge volumes, and improve environmental performance.

NX Filtration's membrane technology — including microfiltration (MF), ultrafiltration (UF), and hollow fiber nanofiltration (HFNF) — enables sustainable water reuse without chemical additives.



Water Usages in Brewery

Our PFAS-free PES membranes ensure reliable removal of suspended solids, organics, and color, while maintaining high flux and easy cleanability.

The result: less chemical use, lower energy consumption, and a smaller water footprint — empowering the Food & Beverage industry to produce more responsibly.

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