



ELIWA®

MEMBRANE PROCESS FOR LIME WATER PREPARATION

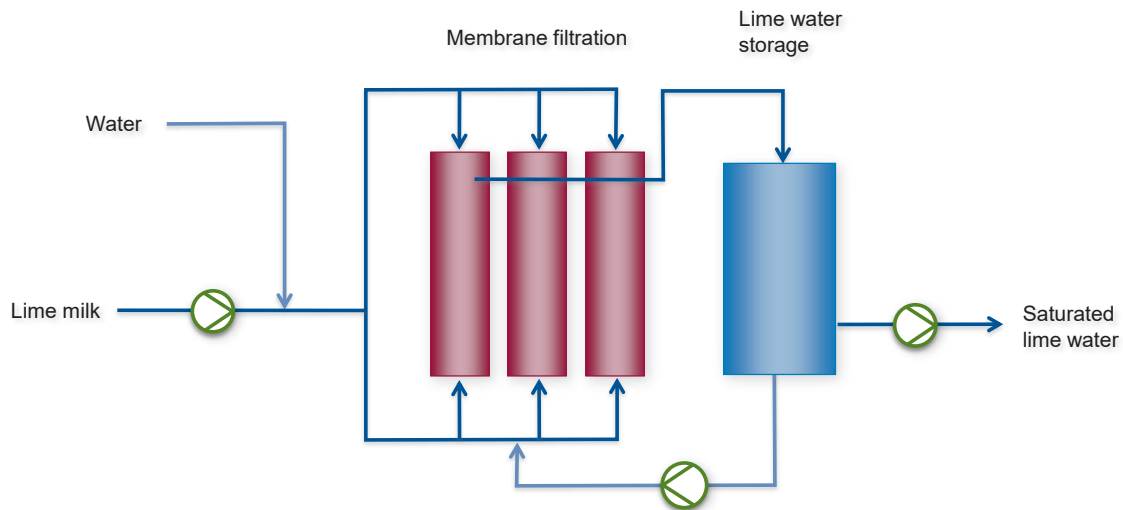
ELIWA® applies modern membrane technology replacing classical lime saturators for lime water preparation. In the ELIWA® system water and lime milk are mixed in-line to produce a saturated solution. The removal of turbidity is then carried out with membranes which hold back not only the smallest particles, but also represents a reliable barrier for bacteria and viruses.

ELIWA® provides clear saturated lime water with high reactivity and because of its low turbidity has distinct advantages over the lime water produced with the conventional method. The quality is continuously monitored in the process, which guarantees consistent quality. ELIWA® can be perfectly combined with all other water treatment processes in which lime water is used.

In the lime precipitation process for example, saturated lime water is used to precipitate bicarbonates. The possibility of dosing saturated lime water more precisely compared to, for example, lime milk is a distinct advantage which positively reflects in the quality of the decarbonised water. In conjunction with an ion exchanger ELIWA® delivers clear saturated lime water to neutralise mineral acids from the ion exchange process.

This produces calcium non-carbonate hardness, which contributes to the reduction of the residual alkalinity in the treated brewing water and thus has a positive effect on the pH during mashing. In a second step the desired temporary hardness can be adjusted as calcium hardness using saturated lime water. This is also true for reverse osmosis systems, when neutralising free carbonic acid in the permeate with saturated lime water.





Combined with reverse osmosis and the EUWA LIQUICK® process, saturated lime water from the ELIWA® precipitates the carbonate hardness. After the membrane filtration of the LIQUICK® stage the concentrate thus prepared can be fed again to the reverse osmosis. The combination of reverse osmosis, LIQUICK® and ELIWA® achieves an overall recovery of up to 98 percent.

Last but not least ELIWA® is a perfect complement to our patented CALMIX® system. In this process, clear saturated lime water reacts with H_2SO_4 and / or HCl . The result is $CaSO_4$ and / or $CaCl_2$ in real-dissolved form, which can be added to the brewingwater or the mash in the desired ratio depending on the recipe and easily allows brewers to produce today's demand for a variety of different beer types.

Compared to the lime saturator ELIWA® is much more compact and needs significantly less room height. With the modular design of the system the output can be adjusted to the specific requirements of the brewery. ELIWA® is easy to add and integrate into existing water treatment plants. Finally, the investment costs are lower and the achieved quality of the lime water compared to the lime saturator is much better. These advantages make the ELIWA® process both technologically and economically very interesting.



With more than 50 years of experience in industrial water treatment for the beverage and food industries, EUWA is specialized in individually tailored solutions for water treatment.

Visit www.euwa.com for more about our patented processes and systems.

EUWA Water treatment systems

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