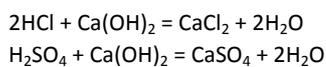




CALMIX[®]

Calcium salts play a crucial role in the brewing process. They influence the pH by reacting with the phosphate buffer of the mash, as well as precipitating oxalate which can prevent gushing of the packaged beer. Not least, they directly affect the sensory character of the finished beer. With the CALMIX[®] method, EUWA opened the brewing industry to new opportunities to tailor the water quality to meet the needs of specific brands or beer types.

In the CALMIX[®] system, mineral acids and clear saturated lime water, the latter being produced by the ELIWA[®] system, react with each other to produce CaSO₄ and CaCl₂ according to the following equations:



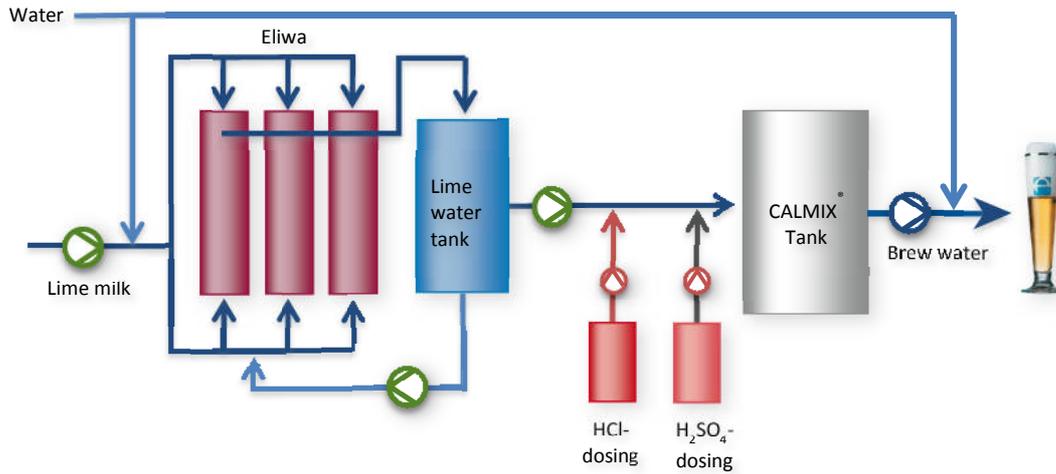
The ratio of the salts in the finished CALMIX[®] solution is adjustable with the dosage of the respective mineral acid limited only by its chloride content to avoid corrosion of the stainless steel components.

The CALMIX[®] method can be combined either direct with the brewing water treatment or substitute as brewhouse-CALMIX[®] the classic calcium chloride and brewing gypsum dosage.

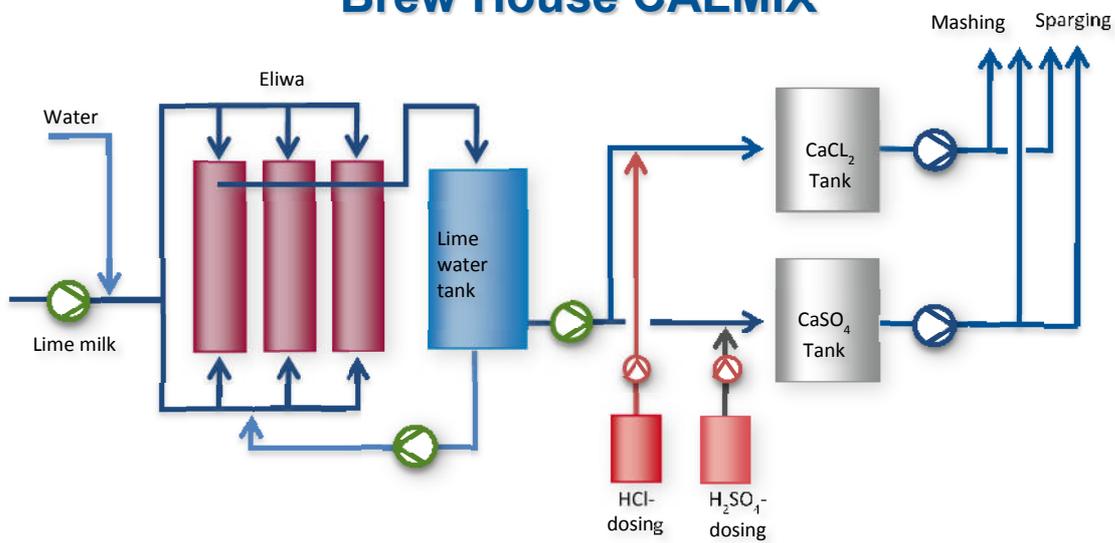
In case of brew water CALMIX[®] a custom-configured solution of lime water and mineral acids is added to the water as the last stage of the brewing water treatment before transfer to the ambient brew water tanks. In this way the brewery adjusts its desired calcium content and the desired ratio of chloride to sulphate in the finished brewing water automatically.

In the brewhouse, lime water and mineral acids are not added to the brewing water, but the CALMIX[®] unit produces clear and saturated calcium chloride and calcium sulphate solutions. These solutions are then added during mashing and sparging.

Brew Water CALMIX®



Brew House CALMIX®



The brewery thus produces a base brewing water and then ensures the optimum ratio of calcium, sulphate and chloride for the particular beer type with the brewhouse-CALMIX®.

The advantage of CALMIX® compared to the conventional addition of powdered CaCl_2 and CaSO_4 is its integrated automation thus providing quality mashing water avoiding any manual intervention.

With CALMIX® really dissolved salts are dosed and no suspension is used as with brewing gypsum. Furthermore, the positive pH-influencing by the CALMIX® process is associated with a reduced or complete eliminated acid demand in the brewhouse.

THE WORLD OF WATER TREATMENT

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