

OPTIMISED WATER AND ENERGY MANAGEMENT IN THE BREWERY – POSSIBILITIES AND BORDERS

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ABSTRACT

Water and energy management is currently one of the most discussed topics in the brewing industry. Steadily increasing costs as well as a continuous short supply of water and energy lead to the necessity of modern management systems and techniques and recycling strategies, especially in the water and energy intensive brewing industry.

The first step of consumption management is the uptake and evaluation of current consumption figures. Based on these figures, different strategies for the reduction of water and energy consumption can be worked out to achieve sustainability on the environment as well as a location based optimisation to reduce costs in the brewery. In a second step, different techniques and strategies can be introduced, which could be described as newer state-of-the-art.

This presentation will include consumption figures of modern breweries as well as the development and possibilities of reduction of overall consumption and their effect on sustainability and costs. Practical uptake and optimisation in breweries are also presented, together with results from large-scale research projects. This will include process water recycling in bottling lines and the area of water treatment, as well as wastewater recycling, new CIP strategies and hot water management. Alternative primary energy sources such as solar and thermal waste treatment, with their effect and limitations on overall consumption, environmental sustainability and cost efficiency, are also presented.