



WATER AUDIT AND PILOT TESTS



-  PHARMACEUTICAL INDUSTRY
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Initially, **CONTIPRO** was involved in the production of food supplements, later it succeeded on the market with **hyaluronan** in the quality for cosmetics and nutrition, and then for pharmaceuticals.

In 2009, the company built its own research centre for the development of **various forms of hyaluronan** with applications in medicine, veterinary medicine and nutrition. Gradually, **nanotechnologies**, among others, began to be applied in both **research and production**.

In recent years, the company has launched a range of joint quality improvement products for both human and veterinary use.

CUSTOMER'S REQUIREMENTS

The impetus for the recycling of production wastewater was the requirement to reduce the volume of pumped groundwater used as an operational water source. In the event of further expansion of production, there was a risk of insufficient capacity. **The goals can be met by recycling production water and production can increase without significantly increasing water consumption.**

SOLUTION



WASTEWATER RECYCLING

The aim of the **pilot test** was to verify the recyclability of slightly polluted wastewater from production. As the most suitable technology was chosen **microfiltration on a ceramic membrane AMAYA**. The results showed that the application of this technology is appropriate for the case.



WASTEWATER TREATMENT

Another **pilot test** was focused on the treatment of all types of wastewater produced in the company. For a period of 3 months' time, the membrane technology was successfully tested – **a bioreactor with a ceramic membrane**.

Subsequently, the **detailed feasibility study** for two basic variants: Utilization and extension of the existing WWTP with membrane modules or the construction of a new biological treatment plant. This study served as the **basis for the customer's final decision**, which direction to take.



WATER AUDIT

During the **pilot tests**, the company decided to conduct a **water audit** to analyze the company's water management – water use, wastewater management, and water resources.

A measure was proposed to save water by **replacing flow-through cooling with a closed circuit**.

