



**MUNICIPAL CASE**

**ÅLANDS WATER**

# ÅLANDS WATER CHOOSES RELIABLE PRIMOZONE SYSTEM

Primozone Production AB installed a new ozone treatment system on the island of Åland in June 2007.

The plant supplies 475 m<sup>3</sup>/h of drinking water to the population of Mariehamn, which is the larger part of Åland's 27.000 inhabitants, and which doubles during the summer season. Åland is an archipelago of 6.500 islands. The process disinfects the water and removes colour and taste from humus.

**Primozone replaces three air-fed generators**

The turnkey delivery consisted of two independent lines, each with:

- Ozone generator Primozone GM 18, rated at 900 g O<sup>3</sup>/h with ozone concentration of 200 g O<sup>3</sup>/ Nm<sup>3</sup>O<sup>2</sup>
- Oxygen generator Oxymat O 100, rated at 6,1 Nm<sup>3</sup> O<sup>2</sup>/h at 4 bar (g) with purity > 93 %
- Compressor Kaeser SM 12, delivering 1200 l/min at 7.5 bar
- Venturi mixing system Mazzei 4091 SS

The plant has been running without interruption and supplied drinking water of excellent quality since Primozone installed the new treatment system.

The MD at Ålands Vatten AB, Mr Christian Nordas says "When the old ozone generators were worn out we decided to replace them with a new generation of ozone generators from Primozone. The Primozone ozone generator system is very reliable and has since the installation worked very well indeed. The production of both ozone and oxygen gas exactly follows the fluctuations we have in the water flow which means that the energy consumption has decreased substantially compared with the old system. We are very happy indeed."



**PROBLEM**

- Raw water taken from a lake. The water contains blue algae's and humus. The algae's can be poisonous and the humus gives colour to the water.
- To create a barrier against bacteria's, virus, algae's and parasites.
- A wish to reduce the electricity consumption

**SOLUTION**

- Part of the ozone from 2 pcs. of Primozone GM 18 supports the flocculation process for humus, meaning that less chemicals needs to be used in the first filtration step.
- Part of the ozone from 2 pcs. of Primozone GM 18 is used to create a barrier killing bacteria's, virus, algae's and parasites. The biological waste is then filtered out via a granulated active carbon filter.
- The electricity consumption has been reduced considerably.

Find out more about Ålands Vatten at [www.vatten.aland.fi](http://www.vatten.aland.fi)