AIRWATERGREEN
Air Technology Sweden

INSTALLATION AT TEKNISKA VERKEN (LINKÖPING)

Reference case in Water and Sewage

BAKGROUND

In the production of drinking water, large volumes of raw water are handled, which is mostly taken from underground sources. The raw water typically comes at a low temperature of between 3 - 10°C, depending on the time of year. The raw water is often filtered in large sand filters in the form of cisterns. The cold raw water cools the cisterns, which often leads to major challenges with condensation. Condensation forms when the surrounding air holds too much moisture in relation to the cold surface of the cistern. The moisture level is then higher than the so-called dew point.

The moisture in the air enters via ventilation of the premises and from open water surfaces. Moisture can also become a problem in other parts of the premises because chemicals in powder form are used in drinking water production. The storage of these chemicals is made easier if you can keep a lower humidity level in the air throughout the premises.

These challenges can be handled with the help of dehumidifiers from Airwatergreen. The dehumidifiers have a uniquely low electricity consumption, they are easy to install and have high capacity even at low temperatures! The ease of installation allows for testing and evaluation prior to permanent placement and installation.

WHAT PROBLEMS DID AIRWATERGREEN'S DEHUMIDIFIERS SOLVE?

A test at **Tekniska Verken Linköping** was carried out over a couple of months when a dehumidifier of model NEXT240 was placed in the premises. During the test, no piping was used, but the air was taken directly at the machine and blown out freely in the room. To ensure the correct moisture level in the air to avoid condensation on the surface of cisterns, external sensors were used that measured both the moisture level but above all the temperature of the cold surfaces. In other words, the dehumidification was dew point-controlled with the AWG Climate Control System. AWG CCS is a cloud-based system for monitoring and controlling air dehumidifiers and sensors. The monitoring system enables the water plant's technicians to monitor operations and the indoor climate from a distance.

The capacity requirement could be verified during the test but a need for more powerful air filtering was identified. At final installation, the NEXT240 is therefore supplemented with an effective air filter that captures dust and other smaller particles from the air.

QUICK FACTS

Product: 1 pc NEXT240

Installation year: April 2023

Reason: Reduce condensation on Sand filters for Raw water.

BENEFITS OF USING AWG´S PRODUCTS VS DOING NOTHING?

Drinking water production is inherently food production. It is therefore important to avoid the formation of condensation in these premises which can lead to both equipment damage and mould growth.

Airwatergreen AB
Lastbilsgatan 9
754 54 UPPSALA

info@airwatergreen.com

Org no: 556815-4818

www.airwatergreen.com