

# WATERWORKS AND PUMP STATIONS



- No condensation
- Improved indoor environment
- Longer lifetime on electronic components

## Water, our most important provision

Less than 3% of all the water on Earth is freshwater, of which we use around 1%. Energy-efficient processing in a clean environment maintaining high levels of hygiene is important on the premises where water is processed. Rust and condensation have no place in waterworks or pump stations.

## Moisture problems

Moisture problems at waterworks and pump stations occur mainly in the summer, when the outdoor air has a high water content. The humid outdoor air penetrates into waterworks, for example, by means of controlled ventilation or infiltration. A moisture load arises due to evaporation from walls and from free water surfaces as well. A water pipe with a surface temperature of 5°C requires the water content of the air to be reduced to no more than 5.5 g/kg so as to ensure that no condensation is formed. Dehumidification has to take place in order to reduce the water content of the air; increasing the temperature does not affect the water content or the dew point.

## Dehumidification does away with harmful moisture

With a dehumidifier from Seibu Giken DST, the water content can be reduced and controlled to ensure that no condensation occurs. This also prevents corrosion damage, electric components deterioration and flaking paint, while at the same time ensuring that the premises are fresher.

## Which dehumidifier should I choose?

Seibu Giken DST AB has been supplying dehumidifiers to waterworks, power stations, water towers and pump stations for more than 20 years. All DST dehumidifiers are of sorption type, which means that the unit operates efficiently even at low temperatures. All dehumidifiers in sizes suitable for waterworks are made from stainless steel and are designed to be easy to service.



## Referenser

**England:** Yorkshire water,

**Poland:** Water plant Torun, Water plant Klodzko, Water plant Konin, Waterwork, Krakow

**Sweden:** Falu Energi och Vatten, Orsa community, Umeå community, Östersund community, Lycksele community, Ystad community, Bodens community, Sundsvalls community, Norrköping water

DST's representatives check the specific requirements of every installation. Visit us at [www.dst-sg.com](http://www.dst-sg.com) and find your nearest DST representative for more information.

*World leaders in dehumidification.*

## Example of an DST dehumidifier installation

# Falu Energi & Vatten

### Problems and requests from the client

Falu Energi & Vatten is responsible for the water supply in the Falun region in Sweden. There were certain problems with condensation at a number of booster stations and pump stations which were most clearly apparent in summer, when the air is at its most humid.

Condensation often occurs in buildings with cold pipes (such as water pipes); this is due to the fact that the air contains too much moisture. The moisture in the air condenses on cold surfaces. If the summer is very damp, the moisture can cause problems with electronics, flaking paint and damp floors. Damp air also provides good conditions for spiders and mosquitoes.

### Solution

The Head of Operations at the waterworks in Falun ordered installation of DST type DR-010B dehumidifiers for four different stations that were suffering from problems with moisture. All units are linked to an electronic type EH4 hygrostat.

### A controlled humidity climate

There was an improvement once the dehumidifiers had been installed in the stations. Condensation no longer drips from the pipes, documents for notes in the rooms



**A DR-010B with DST humidistat EH4 controls moisture at a booster station**

are now dry, and the air is dry and fresh, which also gives a better working environment. A dry environment also protects electronic instruments against problems.

Condensation is essentially impossible to remove by heating or venting. Sorption dehumidifiers work just as efficiently in the summer as during the colder winter months; unlike condensation dehumidifiers, which lose capacity below 15°C.



**EH4, elektronik humidistat with fast response capacitive type moisture sensor**



**Wet air is fed out outside the booster station and regeneration air enters**

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