

## Hyclean Automations System in the Senior Citizens Residence in Thüringen

**Germ-free drinking water in the Senior Citizens Residence**

Reference



# Energy-efficient, easily retrofittable sanitary automation for safe drinking water

In a Senior Citizens Residence in Thüringen for around 150 residents, the operator's priority is to guarantee drinking water hygiene in the building to prevent long-term disease through contaminated drinking water. To meet this goal, the extensively branched piping network in the Senior Citizens Residence that had only partial or no hydraulic balancing at all was reconstructed in late 2018. Despite extremely sparse as-built documentation, the retrofittable Hycleen Automation System was able to ensure reliable hot water distribution and circulation.

## Background to the project

Because of their age, some of the residents at the Thüringen Senior Citizens Residence have a compromised immune system. The care facility invested in the reconstruction of the piping network in order to minimize the harm contaminated drinking water can cause to its residents and to guarantee the required supply of hot water, as well as the correct hygiene parameters, over the long term.

## Chosen technical solution

The renovation of the drinking water installation was handled by the firm SIX Engineers. The employees carrying out the work faced a challenge – incomplete as-built drawings of the piping network that had no or only partial hydraulic balancing. The solution: the Hycleen Automation System. This system guarantees the hydraulic balancing of hot water or rather circulation lines, as well as the automatic flushing of lines with a poor flow-through of water or lines that get too hot.

## Accomplished improvements

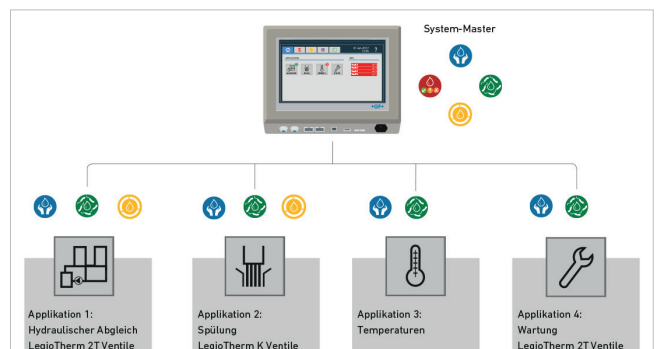
Reliable operation is guaranteed by 31 JRG LegioTherm 2T circulation valves with controllers, as well as a master. This technology is able to permanently monitor the drinking water parameters and record them in accordance with current statutory requirements. One of the advantages of the continuous and reliable checking of the drinking water temperatures is that, in the future, hydraulic imbalances will no longer need to be corrected by higher temperatures in hot water tanks.



All functions, such as hydraulic balancing and automatic cleaning, are controlled by the central device via the connected valves. The parameters of the installation are reliably recorded at all times.

## Customer benefits of the Hycleen Automation System

- Recorded measured values and flushing processes of all pipe legs as proof of a hygienic supply of cold and hot water in the building
- Improved energy efficiency: the Hycleen Automation System allows the temperature that the water boiler has to reach to be permanently reduced.
- In installation networks that are not fully understood, faults in individual pipe legs can be identified and remedied



The master handles the control and is designed, with its existing and freely programmable applications, to help maintain a hygienically optimized drinking water installation.



Now the installation in the Senior Citizens Residence has been equipped with the easily retrofittable Hycleen Automation System, drinking water hygiene is guaranteed.

[Image source title: Eurac Research/Annelie Bortolotti]

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