References

Brønderslev implements new treatment methods



Brønderslev implements Uponor treatment methods

To ensure water quality in nature, Brønderslev Utility is now intensifying its efforts to safely treat rainwater. Uponor Infra is supplying specially designed treatment chambers to treat rainwater from a 20-hectare area before it is discharged into a stormwater basin.

Project Facts:

Location	Completion
Hjallerup, Brønderslev, Denmark	2024
Vrsta objekta	Product systems
Municipal	Well system

Due to increasing rainfall, stormwater specialists Uponor Infra are now installing customised Vortex chambers in Hjallerup. These chambers are part of a new treatment solution that ensures far more effective treatment of stormwater before it is discharged into nature. For Brønderslev Forsyning, the goal is to use better and more efficient technologies to treat rainwater.

- ‘We have for a long time sought a solution that both ensures better water purification and is affordable. The new method from Uponor fulfills both criteria and is also very easy to operate, as an automatic monitoring system notifies a sewerage company, which then sends a vacuum cleaner to empty the chambers. ‘It couldn't be easier,’ says Technical Project Manager Peter Winther Hamborg from Brønderslev Forsyning.

Advanced technology for treating surface water runoff

The Vortex chamber is an advanced treatment chamber designed to retain sediments and solid particles, preventing pollutants from reaching the Danish water environment. To ensure effective treatment of runoff from a 20-hectare area for Hjallerup city centre, the Vortex chambes are placed upstream of a wet stormwater basin. The aim is to ensure that the rainwater discharged into the basin is already cleaned of the vast majority of solid pollutants.

- We have previously used traditional sand trap solutions, but with the new Vortex chambers we can significantly optimise the cleaning process. Previously, the water was cleaned after it had passed through the basins, but now we clean it even before it reaches the basin. This reduces the need to clean the basin itself, as was previously the case. This makes cleaning much more efficient and also saves money,' explains Peter Winther Hamborg.

The Vortex chambers being installed at Brønderslev Forsyning are part of Uponor's Stormwise stormwater concept, which was launched last year. Uponor has worked intensively to develop this concept to meet the growing demand for effective treatment solutions.

- We focus on developing products that are not only more sustainable, but also ensure that utilities across the country can handle the future large volumes of stormwater. The technology behind Vortex chambers is an important step towards more effective treatment solutions, and this development will have a crucial impact on the quality of the water discharged into nature,' says Stormwater Specialist Morten Albér Christensen from Uponor Infra.

Measurements to ensure continued development of treatment systems

In the coming years, chamber performance measurements will be carried out to evaluate the water quality at the basin outlets. This data will be crucial for the further development of future treatment systems.

- The measurements will form the basis for a future assessment of how much we can extend the operating intervals of wet basins and thus create savings for the utility. The most essential thing is that the measurements demonstrate the quality of the water and the level of contamination before the water is discharged from the basin. It is therefore of great importance that Brønderslev Utility has recognised the potential of the Vortex solution,' says Morten Albér Christensen.

Brønderslev Utility is fully aware of the value of precise measurements that can document the effect of the treatment systems.

- 'We work according to the principle of always finding the best solutions for treating stormwater and wastewater. Not only to comply with legislation, but to protect our nature. Therefore, it was obvious for us to enter into a partnership with Uponor, so we can help ensure development and document the best possible solutions with analyses,' says Peter Winther Hamborg from Brønderslev Forsyning.

Easy installation of Vortex treatment chamber











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