

DHI CASE STORY

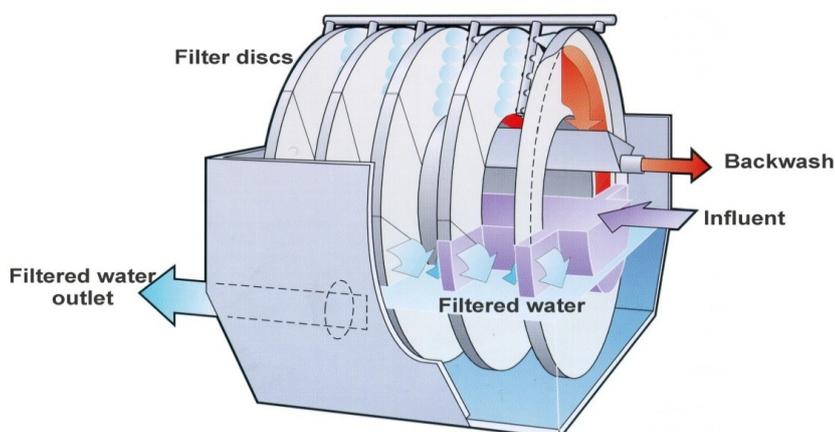
TREATING URBAN STORM WATER RUNOFF

Using compact filtering technology for storm water treatment

In recent years, Denmark has experienced an increase in the intensity of precipitation. In cities across the country, this has also meant a rise in storm water runoff. Without the proper equipment in place to deal with this increase, many combined sewer systems become overloaded. Adapting the Danish wastewater infrastructure to meet this change is essential. In order to help Denmark's wastewater infrastructure adjust, we tested two filtering technologies: Flexible Fibre Filter Module and Hydrotech Disc Filters. These compact systems allow for decentralised treatment of storm water. Treating storm water results in better water quality in the environment and improves municipal wastewater treatment plant operations.

TREATING URBAN STORM WATER RUNOFF WITH COMPACT FILTERING TECHNOLOGIES

The way in which storm water runoff is treated, reused and discharged is a topic of concern for countries around the world. Treating storm water runoff, however, poses unique challenges for cities. As the storm water passes over paved areas and roofs, it collects particles and chemicals. This must be filtered out before the water is discharged back into the environment.



Schematic illustration of Hydrotech Disc Filter © Hydrotech/Krüger A/S

SUMMARY

CLIENT

Collaboration with Krüger A/S and Nordvand A/S for the Environmental Protection Agency of the Danish Ministry of Environment

CHALLENGE

- Hydraulic overload of sewer systems and municipal wastewater treatment plants due to increasing precipitation
- Unwanted discharge of storm water runoff into the environment

SOLUTION

Testing and analysis of two filtering technologies for decentralised handling of storm water

VALUE

- Increased efficiency of wastewater treatment plants
- Improved quality of storm water discharged into the environment
- Reduced hydraulic overload in sewer systems

LOCATION / COUNTRY

Copenhagen, Denmark

