References

# Innovative, reliable - and installed in 11 days



**Uponor involvement**

- Wehopanel Hight 6 m, Widht 5,6 m, L 8,7 m

## Innovative, reliable - and installed in 11 days

Completely in line with the customer´s needs - that was exactly what a solution designed with Wehopanel guaranteed when an old pump station in Vellinge municipality, southern Sweden needed to be renovated and mondernized.
The municipality of Vellinge is located in the expansive Öresund Region, a cross-border cooperative region that encompasses Skane in  southern Sweden and East Denmark. It boasts a beautiful landscape and a large, diverse labour market. Industry is thriving and there is also a vibrant cultural and social scene. The municipal water and wastewater systems were built in the 1960s-70s. Inspections and inventories of the systems are carried out on a contionous basis. The municipality is currently working on the development of an insfrastructure renewal plan that among other things, top priority to qualities such as sustainable products with a long life span. Another important factor when hiring the services of varying companies is the level of competence.

**Project Facts:**

Location
Höllviken, Sweden

Completion
2019

Building Type
Municipal

Product systems
Tailor made constructions

Project Type
Renovation

**Partners**

These days, long-term experience of an industry is not as important as a high level of competence. You might have the best products to offer, but if you don’t have the competence, it will all fall to pieces in the end,’’ says Max Persson, Director of Water Resources at the municipality of Vellinge.

Uponor Infra Project Services presented us with a design solution using Wehopanel – completely in line with the customer’s needs and requirements. When filled with concrete, PE hollow profiles not only become floating-resistant and leak-proof but also highly resistant to aggressive liquids and subsidence in the ground. As this design solution involved a much shorter installation time, we decided to opt for the innovative, reliable and sustainable solution from Uponor Infra Project Services, explains Anders Densfelt from EnviDan

This was a very exciting pilot project for us, as we have previously only installed traditional pipeline systems from Uponor, says Mattias Hedvall, Water and Wastewater Project Manager.

Customer: Municipality of Velling
Consultant: EnviDan AB, Malmoe
Contractor: AF Bygg Syd and Gata & Väg Väst AB
Subcontractor: Uponor Infra Project Services

## Renovation and mondernization needed

Vellinge has several wastewater pumping stations. Domestic wastewater is discharged into the pumping stations, from where it is then pumped up one level into the wastewater pipeline system and onto the next pumping station, until it reaches its final destination – the Klagshamn wastewater treatment plant. EnviDan AB, a consultancy company, was commissioned to carry out inspections and status assessments on seven pumping stations. Though new municipal pumping stations have been added over the years, an inspection showed some to be in need of renovation and modernisation due to the heavy impact on the concrete structure during several decades, including the replacement of existing pumping pits and pumps. Three pumping stations are currently prioritised for renovation work, one of which is located in Höllviken. Höllviken pumping station, which is made of concrete, has started to deteriorate due to age and the long-term effects caused by hydrogen sulphide in the untreated wastewater.
Completely in line with the needs and requirements of the customer
Following the inspections and status assessments, EnviDan AB made a proposal for the renovation of pumping station SK01in Höllviken, one of the three prioritised stations. The renovation of pumping station SK01 required a multistrategy solution which took into consideration the high groundwater table, and, due to the crumbling concrete, a self-supporting and

hydrogen sulphide-resistant construction design. As pumping station SK01 is used for transporting wastewater from Falsterbo, Skanör, Ljunghusen and Höllviken to Klagshamn wastewater treatment plant, it was very important to keep the installation period as short as possible. The incoming sewage was pumped through a temporary system while the renovation was in progress.

The idea was to design a self-supporting and dense construction of polyethylene that could be lifted into the existing wastewater pump basin. Uponor Infra Project Services presented us with a design solution using Wehopanel – completely in line with the customer's needs and requirements. When filled with concrete, PE hollow profiles not only become floating-resistant and leak-proof but also highly resistant to aggressive liquids and subsidence in the ground. As this design solution involved a much shorter installation time, we decided to opt for the innovative, reliable and sustainable solution from Uponor Infra Project Services. Light, highly durable and easy-to-install Wehopanel structures can be dimensioned and equipped for various purposes, such as tanks, foundation slabs, support structures and pumping station buildings. Wehopanels are also excellent for renovation. The collaborative project between the municipality of Vellinge, EnviDan AB, AF Bygg Syd and Uponor Infra Project Services resulted in an innovative new way of using Wehopanels to renovate pumping stations.

Quick installation

The prefabricated Wehopanel solution offered a quick and easy installation, which took only 11 days. The construction work was carried out by AF Bygg Syd, a construction company whose core business is focused on new production and renovation of water and wastewater treatment plants as well as pumping stations in the south of Sweden.

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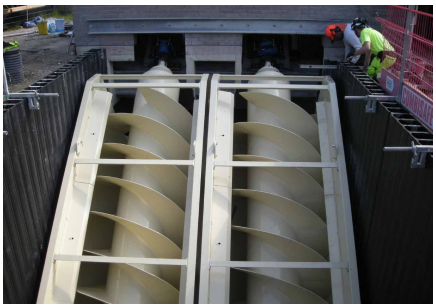






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