

Drinking water for Kalundborg, Denmark

Kalundborg has been obtaining its drinking water from Nordvestsjælland through a pumping station at Marke south of Svinninge which brings together water from several water supplies.

This was no longer sufficient to meet demand, and an additional water supply was therefore needed.

Langerød waterworks south of Holbæk received permission from the County of West Zealand to increase their annual production by 0.65 million cubic metres of water to help the situation in Kalundborg.

It was therefore decided to build a drinking-water pipe from Langerød waterworks to the pumping station at Marke for connecting to the existing distribution pipe to Kalundborg.

The new water pipe was built using horizontal directional drilling, with 240-metre pipe sections. These sections were assembled with segment welding before being pushed into the boreholes. The sections were then joined by electrofusion, creating a single unbroken section of pipe 13.5 km long. The entire process left only negligible marks on the landscape.

The project also included 18 chambers of various sizes – manufactured and



The connection to one of the many chambers on the pipe. The components are being joined by electrofusion.

delivered by KWH Pipe – such as measuring chambers, ventilation chambers and cleaning chambers.

The new water pipeline from Langerød waterworks was built using pipes from KWH Pipe just like the existing water pipeline from Marke to Deigvad waterworks east of Kalundborg. ●

Before pushing the pipes into the boreholes, they were segment welded into 240-metre sections.



15 KM OF PE PRESSURE PIPE LAID BY HORIZONTAL DIRECTIONAL DRILLING

- **Project:** Building of drinking water pipe from Langerød waterworks at Holbæk to the pumping station at Marke
- **Contractor:** The water cooperative Vandfællesskabet Nordvestsjælland a.m.b.a (NV)
- **Consultants:** RAMBØLL
- **Contractor:** NCC Construction Danmark A/S
- **Installation:**
 - Building 13.5 km of 250 mm diameter drinking-water pipe
 - Building 1.6 km of 90 mm diameter drinking-water pipe
 - 18 inspection chambers (meter chambers, ventilation chambers and cleaning chambers)

ABOUT KWH PIPE (DANMARK) AS

- KWH Pipe (Danmark) AS has been one of the leading suppliers of polyethylene (PE) pipes and fittings on the Danish market for more than 40 years.
- The pipe factory in Middelfart produces PE pipes in over 200 different sizes from 20 mm to 1,400 mm diameter.
- KWH Pipe is the only supplier in Denmark that can deliver gravity pipes and pipes for rainwater basins, wells, etc. at diameters up to 3,000 mm.
- Fittings and chambers are customized at the production workshop in Svinninge.