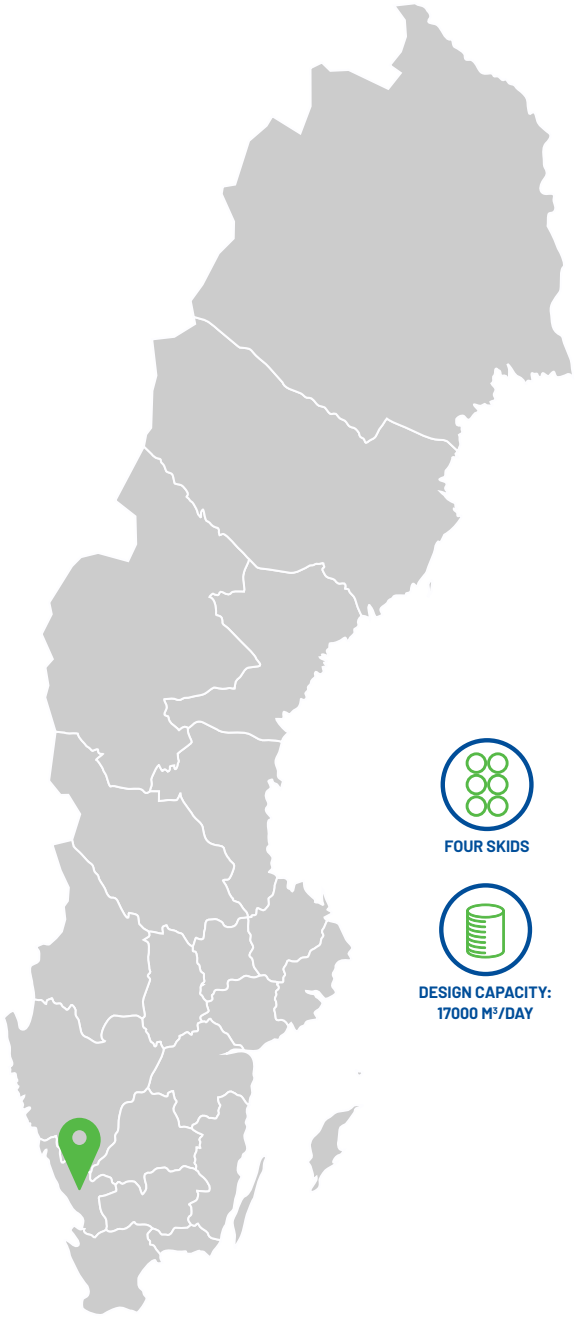
PENTAIR
X-FLOW

CASE STUDY

BUILDING A STATE-OF-THE-ART DRINKING WATER PLANT

KUNGÄLV, SWEDEN



FOUR SKIDS

DESIGN CAPACITY:
17000 M³/DAY

PROBLEMS

- The municipality of Kungälv in western Sweden near the city of Gothenburg needed a clean and reliable solution for their drinking water supply.
- A better solution was vital because the existing plant was at maximum capacity and could not be expanded.
- The existing plant uses artificial infiltration of surface water and could not meet future requirements for microbiological safety.
- The municipality of Kungälv wanted to produce drinking water with lower organic content to improve the water for their customers.

SOLUTIONS

- Pentair® X-Flow™ Xiga™ Solution was installed that offers high surface area-to-footprint as a primary membrane system that treats the incoming water.
- Pentair X-Flow Aquaflex™ Solution was installed to treat the backwash waste of the primary membrane system and is the ideal choice for high solids membrane filtration applications.
- Dosing coagulation chemicals help to improve the water quality. They precipitate the dissolved organics so the Pentair X-Flow XF57 Membrane Elements will efficiently remove these precipitated organics.



Pentair X-Flow Xiga Solution



Drinking water plant in Kungälv

PROJECT RESULTS

- The Pentair X-Flow Aquaflex and Xiga Solution equipped with Pentair X-Flow XF57 Membrane Elements showed to be very effective for the improvement of the water quality and membrane performance in terms of process stability and coagulant usage.
- The system uses an advanced feed forward control to adjust the coagulant dose. This reacts adequately to peaks in Natural Organic Matter (NOM). It operates with minimum dosages and contributes to improve permeate quality.
- The municipality of Kungälv has been very pleased with the membrane system and the support by Pentair X-Flow. The coagulation / filtration step helps reducing NOM in a single step while the membranes assists in the removal of bacteria and viruses.

LEARN MORE AT XFLOW.PENTAIR.COM

"We are very pleased with our new water treatment plant, especially the ultrafiltration process. The water after the UF stage and in our distribution, system is of superior quality, both chemically and microbiologically"

Andrew Holmes
Process Engineer
Kungälv



Pentair X-Flow Aquaflex Solution

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