

## Case story

# VLT® MCD 500 prevents water hammering

**In Norðurbakki in Hafnarfjörður – a town of 24,000 people within in the Reykjavik area in Iceland - VLT® Soft Starter MCD 500 eliminate severe water hammer problems in the waste water plant.**

In the pumping station are three Flygt pumps with space left for the fourth - all started by VLT® Soft Starters MCD 500.

The pumps move waste-water through 300 mm pipes from a small reservoir to a tower, from where the water flows to the next pumping station.

Each pipeline has a check valve.

A PLC starts the pumps according to consumption and the level in the reservoir.

When stopping the pumps, significant water-hammer noise appeared. Even

when using the standard soft-stop functionality, the water hammering could not be controlled. The impact was so severe that the pipes threatened to tear out the fastening bolts from the walls.

The new VLT® Soft Starter MCD 500 has been developed to meet situations like this. The new feature Adaptive Acceleration Control (AAC) automatically employs the best starting and stopping profile for the application.

Adaptive Acceleration Control means, that for each start and stop, the soft starter compares and adapts the process to the chosen profile fitting to the application.

The VLT® Soft Starter were installed in 2008 and minimised water-hammering.



*Three Flygt pumps controlled by a PLC raise wastewater from a reservoir for it to flow by gravity alone to the next pumping station.*

*The waste water pumping station outside Reykjavik.*



