

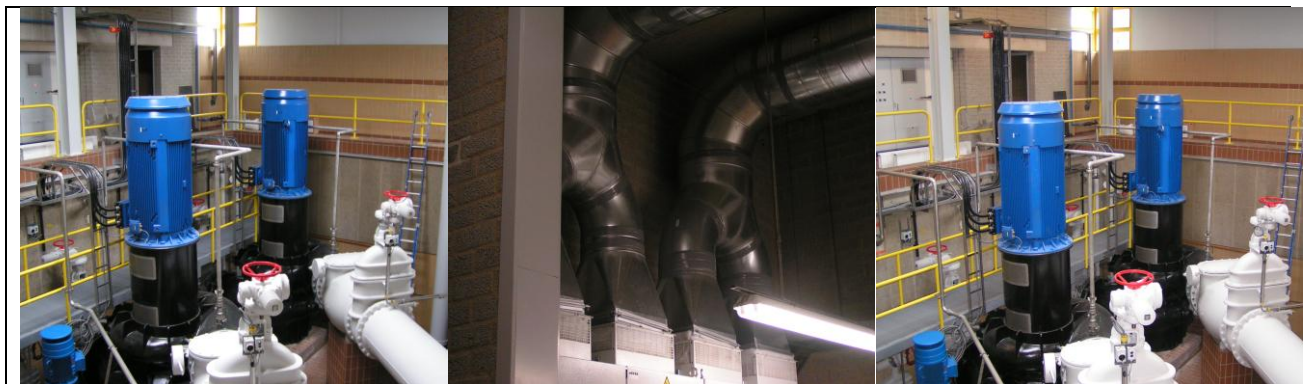


## Improving overflow measures for Dutch municipality, Zwolle

Under normal circumstances, the water system in Netherlands works well. Problems such as safety, water shortages, flooding, waterlogging and salinization are rare. However, they can occur under extreme circumstances, so it is crucial to be prepared. When the municipality of Zwolle needed to improve its overflow measures, they turned to CG Drives & Automation for help.

### Background

Waste water from the inner ring of Zwolle is transported through the purification sewage pumping station. When the municipality realised they needed to improve their overflow system in accordance with new laws, they opted to increase sewage pumping capacity to handle extra waste water instead of building an overflow basin. Patrick Douwsma of Zwolle town council and consultant Peter Bastiaans worked together on the project to build a new pumping station, which was also designed to support the Flowserve, Beenen and Eekels pumping stations.



### Smaller pump saves energy

CG Drives & Automation helped Zwolle find an effective solution using Emotron drives, and additionally, provided advice about transporting heat away from the installation room. A smaller DWA pump with a capacity of 600-800m<sup>3</sup> / h was chosen for this project, enabling Zwolle to make considerable energy savings. The smaller pump not only prevents unnecessary energy losses but also saves on maintenance due to a reduction in piping.

### Use of frequency inverters advised

Besides helping to solve a number of specific practical problems associated with the new pumping station, CG Drives & Automation advised Zwolle to use the frequency inverters

DWA pump 1x Emotron FDU2.0 48-046-54CE RWA pump 2x Emotron FDU2.0 48-860-54CE. This means that they save a lot of energy in normal weather conditions by using an smaller pump in combination with a drive. And with a lot of rainfall they use the bigger pump and drive.



### Successful installation; cost-effective solution

The project was not without its challenges. Alongside the demand for increased pumping station capacity, they also needed to get agreement from all the different parties involved, and still complete the work according to a tight timetable. Fortunately, the deployment of emergency pumps was not necessary and the proposed solution proved to be very cost-effective.

#### IN BRIEF:

##### Customer

Municipality Zwolle, Netherlands

##### Challenge

To pump sewage from the centre of Zwolle to the waste water plant

To prevent overflowing of wastewater

To transport the heat from the installation room

##### Solution

DWA pump 1x Emotron FDU2.0 48-046-54CE

RWA pump 2x Emotron FDU2.0 48-860-54CE

##### Benefits

- Prevents unnecessary energy losses
- Reduces maintenance needs
- Cost efficient solution



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