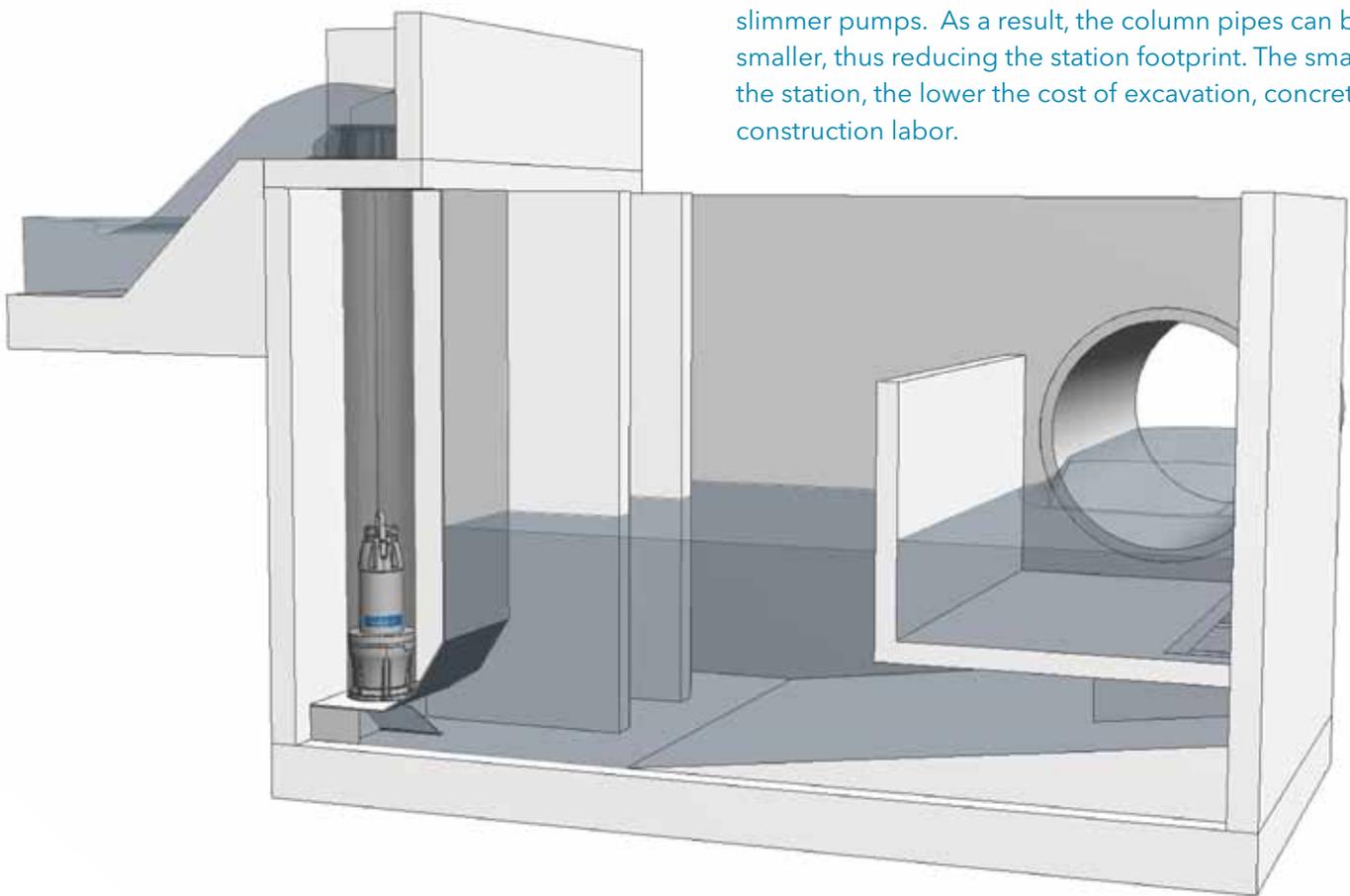




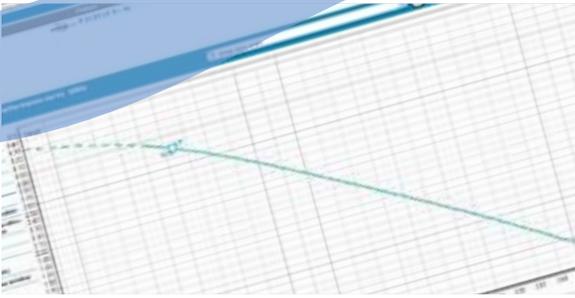
## Master the flow – with a smaller footprint

The new streamlined pump design, enhanced by Computational Fluid Dynamics (CFD) modeling, enables slimmer pumps. As a result, the column pipes can be smaller, thus reducing the station footprint. The smaller the station, the lower the cost of excavation, concrete and construction labor.



Because the pump station is a complex system, it is important to consider every aspect in the station design. Pump system reliability and efficiency depend not only on the performance of the

pumps, but also on a well designed pump sump and pump system. We offer our long system experience, together with our expert tools to support your successful station design.



## Advanced engineering tools

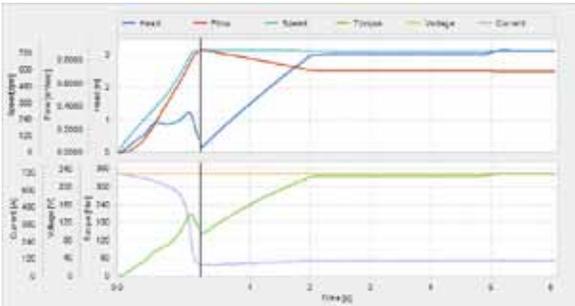
### Xylect

We have a powerful online tool, Xylect, to help simplify product selection. Features include an application wizard, technical product documentation, data sheets, product configuration and accessory selection.



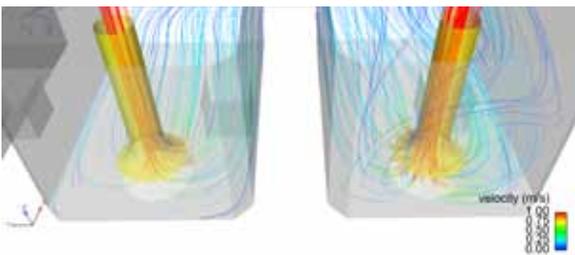
### SECAD

SECAD is a pump station design tool delivered as a comprehensive software package developed and produced by Flygt, and intended to be used by people involved in the design and drafting of flood control, sewage and storm water facilities. Greatly simplifying design work, SECAD is built on decades of engineering experience and puts the professional know-how in your own hands. Incorporating number of pumps, installation procedures, and design flow, SECAD provides automatic generation of drawings with all dimensions and CAD files tailored to your specific projects.



### Pump system analysis

To analyze the transient effects at pump start and stop with respect to flow and head as well as the electrical parameters such as running current and motor torque, it is important to have an accurate mathematical description of the pump and motor. This is gained, in part, from extensive testing in our laboratories. We offer calculations with our advanced tools.



### CFD

In addition to using CFD in the development of pumps, we use it in the design of pump stations. Our generic pump station designs are continuously optimized and new effective solutions developed based on the insights gained through CFD modeling. CFD is also useful in designing pump stations for customer projects for non-standard configuration or any large pump station, if the risks involved outweigh the costs of CFD modeling.



### Model testing

As a complement or alternative to CFD modeling, we use physical modeling to develop cost-effective solutions to complex hydraulic problems. This is particularly relevant for pump stations in which the geometry departs from recommended standards or where no prior experience with the application exists. Model testing can also be employed to identify problems in existing installations, and it has proven to be a far less expensive way to determine the viability of possible solutions than through trial and error at full scale.