

CASE STUDY

Sulzer Solved Clogging Issues with Outstanding Pump Efficiency

Zell am See is the administrative capital of the Zell am See district in the Austrian state of Salzburg. The town is an important tourist destination, located very close to the Kitzsteinhorn glacier. This is the only glacier in Salzburg and its plateau is located 3 029 meters above the sea level. It offers the rare luxury of skiing also during the summer.

The horizontal, dry-installed pumps at the network pumping station Zell am See were clogging at least 2-4 times a week, also during weekends. Consequently, the pumps had to be lifted and the blockage removed. A high amount of sanitary items and incontinence adult diapers from the nearby hospital were the root cause for the clogging.



Network pumping station in Zell am See

“ *The Sulzer ABS XFP pumps with the Contrablock™ impeller have solved the clogging issue. Their rag-handling ability has been proven, and the next pump will certainly be of the same type.* ”

Erich Gruber, Community Advisor at Zell am See

The Sulzer difference

- Sulzer's reliable sewage pumps with the new Contrablock™ Plus impeller and efficient hydraulics save 30 kW/hour compared to the former installation.
- 90% of the pumps at the lifting stations of the Zell am See township have now been upgraded with Sulzer pumps.
- Reliable, economical pumping of heavily polluted sewage in commercial, industrial and municipal applications.
- Customized solutions and strong service.

The challenge

To solve the constant blocking of the pumps, the customer requested an optimal solution for the very demanding application. They were looking for pumps with high rag-handling capability to avoid disruptions in the operation of the pumping station.

The solution

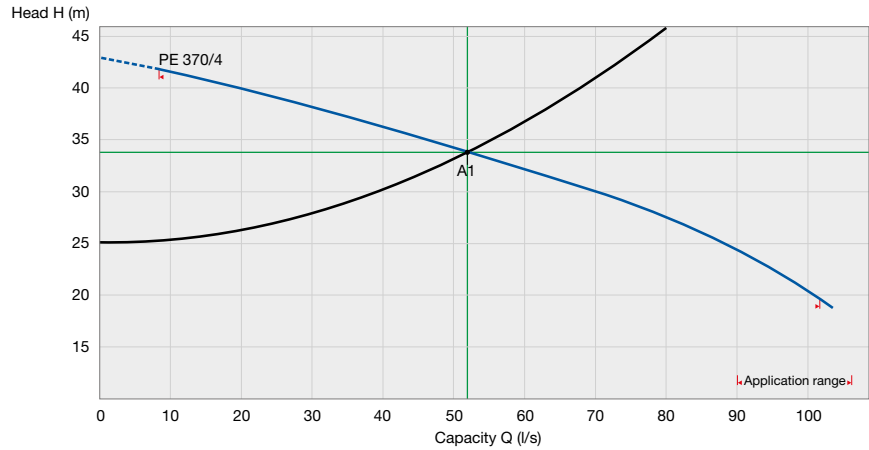
Sulzer Austria supported the community by evaluating the actual flow conditions in the pumping station. As a result of the evaluation, the solution was to install the latest Sulzer pump design for wastewater collection, the submersible sewage pump type XFP Contrablock™ Plus.

Customer benefit

- The Sulzer pumps with Contrablock™ Plus impellers immediately solved the clogging issue.
- Zell am See has not experienced any clogging with the Sulzer pumps during the more than six months they have been running.
- Reduced down-time and energy consumption.
- Minimized maintenance at standard conditions.



Submersible sewage pumps type ABS XFP installed in the pumping station



Product data

Two submersible sewage pumps type ABS XFP105J-CB2 PE370/4, dry well horizontal installation

- 400 Volt 50 Hz
- Electro Magnetic Compatibility (EMC) cable
- Operation with variable frequency drives (VFD)
- The Contrablock Plus impeller has been specially engineered to handle tough requirements, such as reduced water consumption and higher rag and solid content
- Highly reliable and efficient impeller design with single and multi-vane models to ensure exceptional blockage resistance, solid passage min. 75 mm / 3 in and greater

XFP105J-CB2 PE370/4	
Motor	Premium Efficiency IE3
Power P2	37 kW, 4 poles
Impeller	Contrablock Plus
Flow	52 l/s
Head	34 m
Efficiency	Maximum 72%

The submersible XFP pumps can be installed according to the following installations, to fulfill virtually any customer requirements:

- Wet well installation with pedestal
- Wet well transportable installation
- Dry well vertical installation
- Dry well horizontal installation

Contact

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Applicable markets

Wastewater collection and transport

Applicable products

Submersible sewage pump type ABS XFP

For more information on our submersible pumps, please visit sulzer.com.