

Reliable and cost-effective sump pumping with Sulzer's ejector

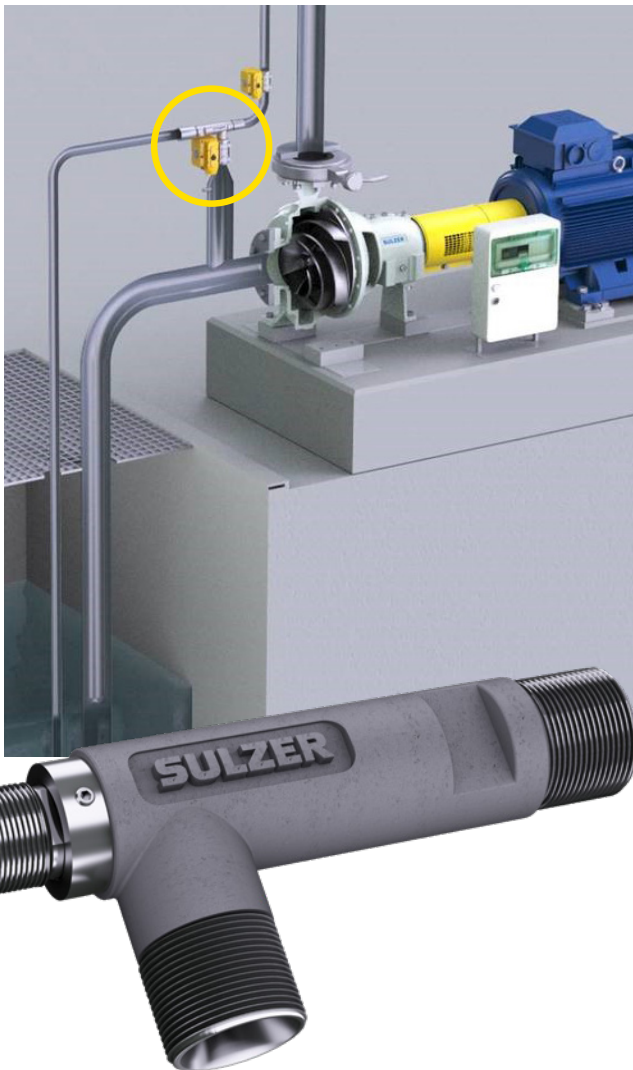
One of our key customers in the pulp and paper industry was designing a new wastewater pit for their mill. The wastewater contains particles, impurities and a maximum of 1% fibers. The customer needed to pump the wastewater from a pit 2.3 meters deep and wanted to have an energy-efficient, reliable and easily maintained solution for sump pumping.

The alternatives were to use a cantilever pump, a submersible pump, a self-priming process pump or a process pump with an ejector.



Sump pumping has never been as easy as with a standard process pump equipped with an ejector. Priming has never failed, and it is very fast.

Juha Ottelin, Area Sales Manager at Sulzer in Finland



The challenge

- We needed to find the optimal solution for sump pumping in terms of reliability, service friendliness, efficiency and investment costs to maximize the benefits for the customer.
- The customer wished to use a standard process pump for sump pumping to enable the use of the same spare parts as for the process pumps in the other applications of the mill.

The solution

We concluded that our SNS process pump provided with an ejector was clearly the best alternative for this purpose – both energy efficient and cost competitive. We were able to select from a variety of pump sizes and stated that the SNS1-80 pump was performing very efficiently, and that the ejector did not consume energy during the normal pumping process. In the mill, there was pressurized air available for the ejector.

The wastewater pit pump works intermittently, so priming is needed multiple times per day. The automation package controls the valves accurately and performs the priming smoothly. No problems or failures have occurred. Priming with an ejector is efficient, reliable and fast.

Customer benefit

- The complete pump unit and the ejector, including the automation package, were easy and fast to install and take into use.
- The ejector makes sump pumping easy, fast, reliable and cost effective.
- The investment cost is low.
- The solution is service friendly because the sump pump uses the same spare parts as the other process pumps in the mill.

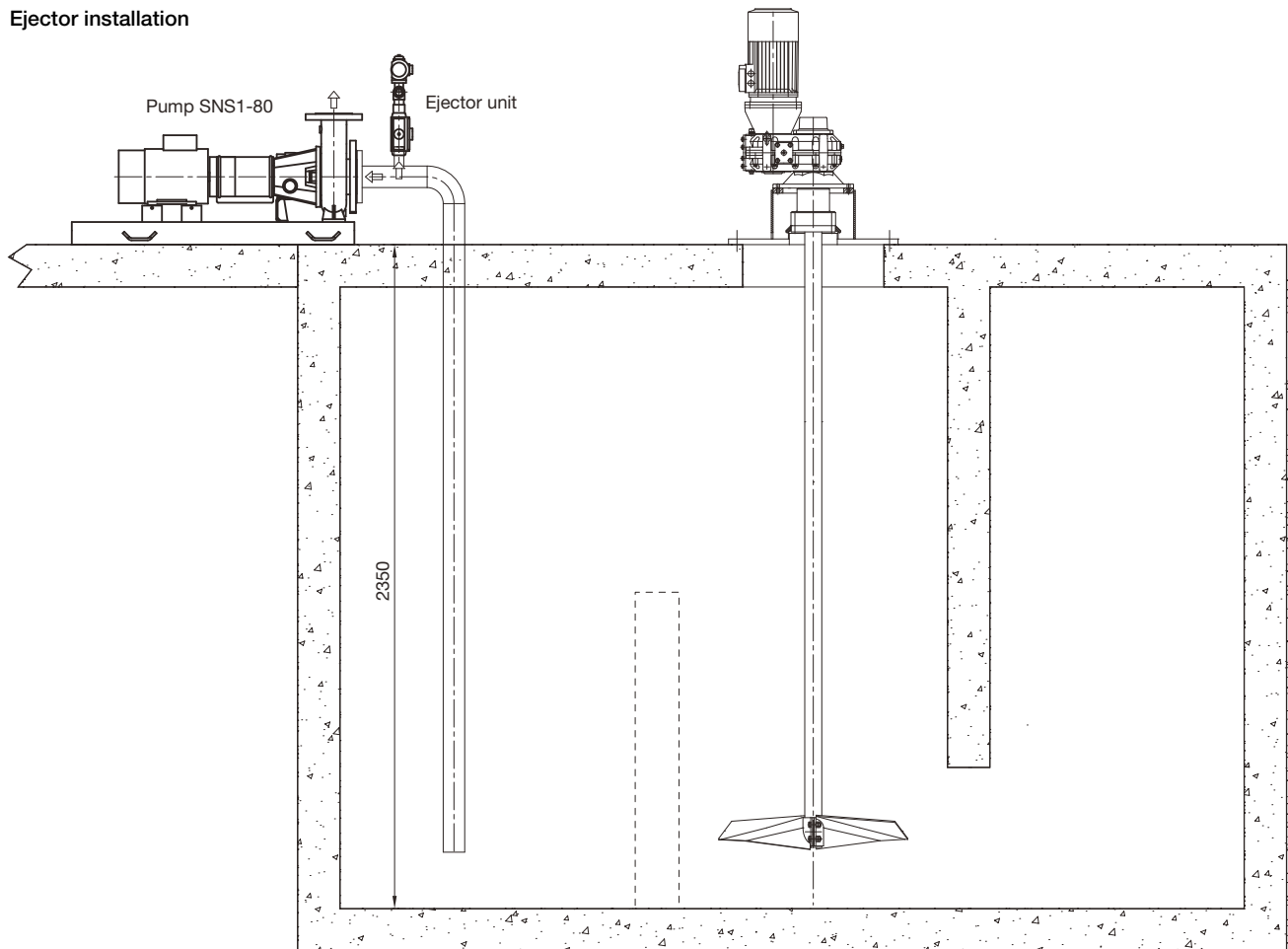
Project data

Segment: Pulp, paper and board industry
Application: Wastewater pit pumping
Pump: SNS1-80 end-suction single-stage pump

- capacity 10 l/s
- head 5.5 m
- double mechanical seal
- rotational speed 1'500 rpm

Ejector: Ejector unit with automation package

Ejector installation



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