

Fish Friendly Pumping Schieveen Rotterdam

Application market	Construction
Market segment	Dewatering & Drainage Flood Control
Pumped medium	Surface water
Pump product	Axial Column
Country	Netherlands



Challenge

A monumental old pumping station from the 1920's with a dry installed Pannevis pump was in need of renovation. Due to the effects of climate change and more heavy rainfall, the capacity of the pumping station had to be increased. A safe transfer of the existing fish was an important requirement when designing the new pumps.

Solution

With two Hidrostal Screw Centrifugal Axial Column Pumps placed back to back to each other and close together, the small pump chamber could be used to its full extent, leaving practically no free space. With optimized impeller blade geometry, a large free passage of 230mm and low shaft operating speed, the most important criteria for fish-friendly operation are met.

Benefits

With the installation of the two largest possible pumps, the limited space available was used to the maximum and the old building was left in its original form. If necessary, the tube chamber provide easy access to the pumps for service and maintenance. Due to the robust construction and long service life of the Axial Column Pumps, trouble-free operation is expected for the next 30 years. With its optimized blade geometry, the Screw Centrifugal Pump guarantees the safe passage of live fish in a unique way.

Quantity of units sold	2
Pump type	L20A-HD1 + LNUCA-G
Motor data	400 kW / 10 pole / 50 Hz / 400 V
Material combination	Cast iron pump body and wear parts with ductile iron impeller
Duty point	Flow : 600 litres per second / Head : 4.9 meters at 578 rpm
In operation since	January 2018