

## Akkerdijkse Polder Delft

Application market	Construction
Market segment	Dewatering & Drainage Flood Control
Pumped medium	Surface water
Pump product	Bearing Frame Cantilever
Country	Netherlands



### Challenge

The newly designed pumping station for drainage of the surroundings had to be equipped with an electric motor installed at a visible height. The public was to be made aware of the rotating machine in order to create a symbolic connection to the historic windmill nearby. High demands were placed on the gentle handling in order to enable the living fish present to pass safely.

### Solution

Two Hidrostat Screw Centrifugal Pumps nominal discharge size 400mm with bearing frame give the basis of the Cantilever-type pumps specially developed for this application. The pump units are mounted vertically on a galvanized support. A two meter long shaft extension with protective tube is connected to the above floor mounted electric motor, which is clearly visible from the outside.

### Benefits

For the most part standard Hidrostat components could be used. The tailor-made design of the shaft extension was carried out with simple, reliable components, which keeps the installation costs low and the ease of maintenance high. The motor is frequency controlled. This allows flexible regulation of water levels, giving the local population dry feet at all times. In many other installations within the same sales area, the Screw Centrifugal Pump has already proved to be fish-friendly, which on the other hand makes the fish concerned happy.

Quantity of units sold	2
Pump type	I16K-HD1 + IHM1X-G280
Motor data	IEC frame size 280 / 30 kW / 8 pole / 50 Hz / 400 V with VFD
Material combination	Cast iron pump body and wear parts with ductile iron impeller
Duty point	Flow : 333 litres per second / Head : 4.5 meters at 560 rpm
In operation since	December 2017