Central Plant Horsens

Application market	Wastewater
Market segment	Sludge treatment
Pumped medium	Sludge
Pump product	Bearing Frame
Country	Denmark

Challenge

High demands were placed on the pumps for the revision of the sludge treatment in a wastewater treatment plant: Maximum wear resistance of wetted pump parts and the existing energy saving potential should be achieved as far as possible.

Solution

Installation of four non-clogging Screw Centrifugal Bearing Frame pumps with large free passage and a high overall efficiency. Wear surfaces of the pump parts in contact with the pumped medium are coated with ceramic. Pumps are driven with permanent magnet motors from Leroy Somer and frequency converters.

Benefits

The inspection after one year of operation showed no damage or significant wear of the ceramic coating. With the Hidrostal Screw Centrifugal Pump, the customer's requirements could be fully met with:

- → a reliable pump solution with a very high resistance to mechanical wear
- → reduction of pump energy consumption by almost 22% compared to previous installed configuration
- → high customer satisfaction with follow-up orders

Quantity of units sold	4
Pump type	I16K-SS3R + IHM1X-X280
Motor data	70 kW / 750 rpm / Permanent magnet and frequency converter
Material combination	Stainless steel impeller, Hidrohard wear parts, all wetted parts with ceramic coating
Duty point	Flow : 350 to 700 litres per second / Head : 10.5 meters
In operation since	2012