Flywheel Bearing Frame Halle Sued 1

Application market	Wastewater
Market segment	Wastewater Collection
Pumped medium	Raw, unscreened wastewater
Pump product	Bearing Frame with V-belt and Flywheel
Country	Germany

Challenge

An existing Bearing Frame pump with belt drive should be modified or extended in such a way that possibly occurring hydraulic water hammer in the pipe system, due to sudden power failures can be effectively eliminated.

Solution

Integration of an intermediate shaft with flywheel into the existing, belt-driven Bearing Frame pump. Dimensioning of the flywheel was made in accordance with exact calculations. The flywheel mass acts as a kinetic energy store and extends the pump's slow-down time. In this way, in case of a sudden power failure, the flow is continuously decelerated to a standstill.

Benefits

The customer’s requirements to eliminate the risk for water hammers could be fully met with a relative simple and cost-efficient flywheel installation.

Quantity of units sold	2
Pump type	F06K-S03R+FGM1W-GM.K
Motor data	45 kW / 4 pole / 50 Hz / IP 55 / IEC frame size 225
Material combination	Stainless steel impeller and Hidrohard wear parts
Duty point	Flow : 108 litres per second / Head : 22 meters
In operation since	2001