SEEPEX.
ALL THINGS FLOW

HOT SLUDGE COST SAVINGS

CONVEYED PRODUCT
Hot sludge

KEY SPECIFICATIONS
Reduced downtime
Reduced maintenance time
Small footprint
Improved energy efficiency

COST SAVINGS
5X MORE PUMP SERVICE LIFE

REDUCED MAINTENANCE COSTS

50% REDUCTION IN MOTOR SIZE

PUMP TYPE
BN 202-6L
Flow rate: 100 m^3/h

BACKGROUND
Thames Water WwTW in Reading experienced excessive downtime and high maintenance costs associated with 4 lobe pumps on a hot sludge recirculation duty.

TASK
The lobe pumps were situated on a small plinth where there was insufficient space for in situ maintenance. They were fitted with an overhead V belt drive configuration which resulted in a very compact footprint. Excessive wear meant that the pumps had to be removed regularly for service – a 16 hour task.

SEEPEX was requested by Thames Water engineers to supply reliable pump technology within the space constraints of the existing lobe pumps.

SOLUTION
A BN pump was installed vertically in an enclosed 'can' fitted on to the original plinth. The hot sludge (4-6 ds%) flows into the can, and the pump runs clockwise for discharge into the original pipework. Energy efficient motors of 18.5 KW with inverter control replaced the 45 KW belt driven motors of the lobe pumps. A quick disassembly system of just 8 bolts removes the pump in an hour. To date (Nov. 2015) the pump has required no service in 30 months. This success has resulted in all 4 lobe pumps being replaced with the SEEPEX design.

BENEFITS
- Reduced maintenance intervals – rotors and stators are lasting 500% longer than the lobe pumps (to date)
- Vertical installation uses existing space
- Maintenance time reduced by 14 hours per pump
- Efficient motors have saved over 25 KW per pump. Direct drives have replaced the belt drives improving efficiency by a further 20%.

CSEE.BN.Thames Water.EN_10.16