

## A lively bottom brings results!

The treatment of municipal and industrial effluent is today a primary focus for protecting the environment and ensuring the health of future generations.

Accordingly, the treatment of waste water has now developed into a major industry with complex chemical, biological and mechanical processes employed. Towards the latter end of the process is the need to reduce the volume of the remaining waste, usually involving some form of mechanical dewatering that delivers a product with ds ranging from 18-45%. However, as well as reducing volumes, increasingly legislation demands some form of treatment to be undertaken to reduce the harmful pathogens prior to the sludge either going for land disposal or further processing. At this stage the sludge is dry yet very viscous and is usually transported by either a conveyor system or by piston-pumps or progressive cavity.

However applications do exist where this product has to be reintroduced into the final treatment process, such as where offspecification sludge has failed to meet the required pathogen kill, or where small volumes of dewatered sludge have to be accommodated from satellite works.

### The starting situation

Introducing a highly viscous non-flowable product back into a process system presented a major UK water authority with a problem, until they contacted seepex.

### The solution

seepex, specialists in handling highly viscous products, such as dewatered sludge, designed a unique 'live bottom' storage hopper which was then mounted above a seepex open hopper progressive cavity pump. The live bottom ensured that the non-flowable product was moved into a central point where it was discharged into the pump open hopper.

### The benefit

This unique combination proved very successful and has subsequently been installed in remote locations on the Isle of Man, within various other UK water authorities, and also in Ireland and France.

As well as addressing this problem, the seepex range of progressive cavity pumps designed to handle de-watered sludge are now capable of pumping this highly viscous product distances of up to 250 m.



A seepex BTE 35-48 pump fitted with a live bottom storage silo receiving off specification sludge for reprocessing. Sludge is loaded into the pump hopper via a front loader. Storage capacity: 6 m<sup>3</sup>.



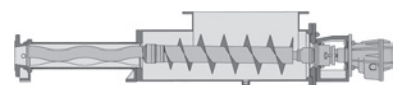
Dewatered sludge waiting reprocessing

### Key Facts

- Can be loaded via a front loader
- Can receive sludge cake from several dewatering devices
- Handles up to 45% ds
- 'Live bottom' silo up to 10 tons

### Significant Cost Savings

- Low installation cost - no major civils
- Small foot print
- Low cost of ownership



### Installed Pump Type

- Range BTE

Please visit [www.seepex.com](http://www.seepex.com) for further information and contacts.