

Pump Encapsulation Transforms PST Desludging

One of the simplest and most widely used methods of sewage treatment is to provide for initial gravity settlement of organic solids in primary settlement tanks (PST's). Scrapers present in the tanks move continuously along the floor to collect the settled solids (primary sludge) for removal.

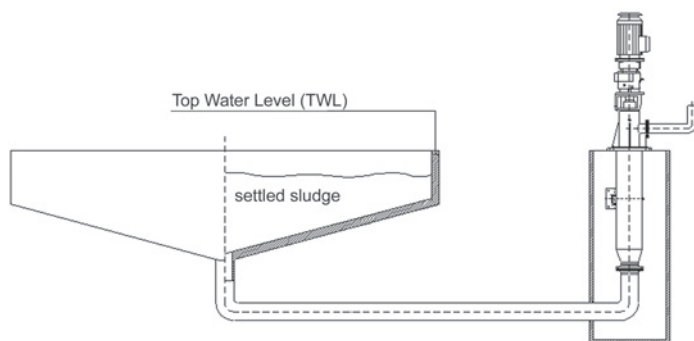
The starting situation

On many older works the desludging of PST's is a manual operation necessitating the periodic opening of valves in an adjacent wet well from where the sludge can be transferred for further treatment – a labour intensive operation for which seepex offer an innovative, automated solution.

The solution

To allow simple retrospective installation of an automatic desludging system using the existing wet well seepex have developed the encapsulated pump. A seepex range BE vertically mounted semi-submersible progressive cavity pump is encapsulated within a watertight steel tube terminating in a standard BS4504 flange. The existing wet well bell mouth is removed and replaced by the seepex encapsulated pump. Overall pump length is varied depending on wet well dimensions to ensure the encapsulation tube projects above PST top water level. In addition to the obvious advantages of automation with desludging controlled via timers or sludge density/turbidity sensors, the encapsulated design significantly eases maintenance as the pump can be withdrawn from its encapsulation tube without the need for service personnel to enter the hazardous confined space of the wet well. Pump motor and gearbox are outside the wet well and thus easily accessible. ATEX certified drives are not required. Installation costs are further reduced as the pumps can be removed without the need for isolation valves.

No wonder since introducing the encapsulated pump to the market seepex have been contacted by many major water plc's and contractors to help solve their PST desludging problems.



The engineered solution - primary settlement tank with seepex encapsulated pump range BE

Please visit www.seepex.com for further information and contacts.



Desludge wet well



Encapsulated BE 70-12

Key Facts

- Automation of labour intense operation
- Improved solids control
- Improved health + safety of service personnel
- Ease of installation
- Ease of maintenance

Significant Cost Savings

- No major civil works with seepex solution
- No operator labour costs
- Reduced maintenance costs



Installed Pump Type

- Range BE