

### Technology's description

Scraper Box is a simple, efficient and low cost innovative technology for thickening liquid sludge. It can be automated and does not require conditioning polymer. It produces sludge that is 60% more concentrated than with usual thickeners: sludge dryness is increased significantly from 3 g/L to 30g/L at least, without the use of costly polymer.

Our innovative thickener is particularly adapted to the needs of rural and peri-urban cities with small waste water treatment plants (smaller than 2000 inhabitants). It is mobile, robust, space-saving and simple to maintain while its tactile interface makes it easy to use. The device includes a tank (inlet: raw sludge; outlet: thickened sludge) with an internal filter to separate two sections. Raw sludge is added into the lower section. It is then thickened over 2 stages: settling followed by filtration/compression. The settling phase occurs until the sludge cake reaches the filter located in the upper part of the tank. The thickened sludge is removed separately from the liquid contained in the upper section. A second tank allows a continuous thickening while the first one is emptying.

### Advantages

- Reduced production costs
- No use of coagulant
- Significant increase in sludge dryness
- Robust, space-saving, mobile
- Easy to use - Easy maintenance
- Can be automated (using a low-cost device)
- Use of peristaltic pump (flow, lifetime)
- Velocity of distillation front (0,75m/h for 5L/min of flow)

### Applications

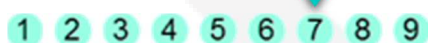
- Processing waste water: thickening sludge from waste water treatment plants.

### Intellectual property

Patent

### Development level

System prototype demonstration in operational environment



### Technology transfer

- License

