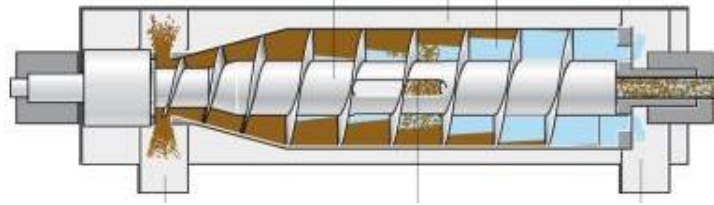
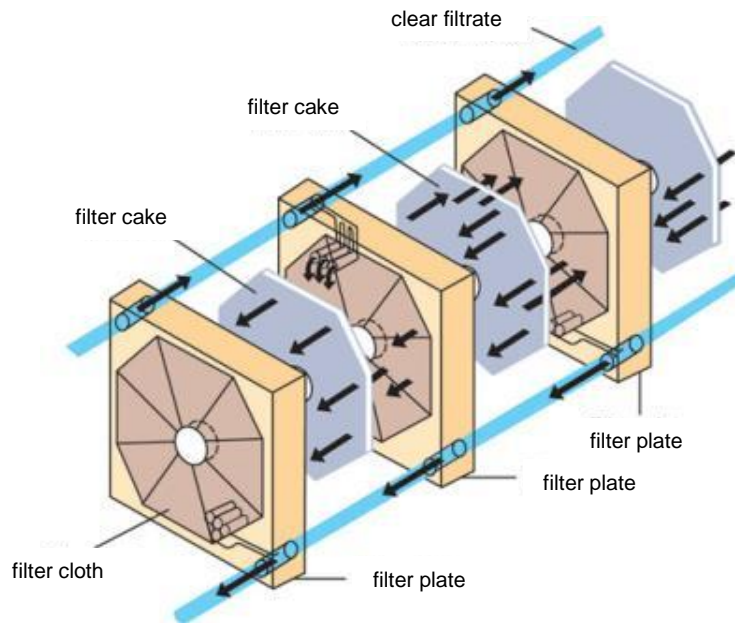


Mechanical Dewatering



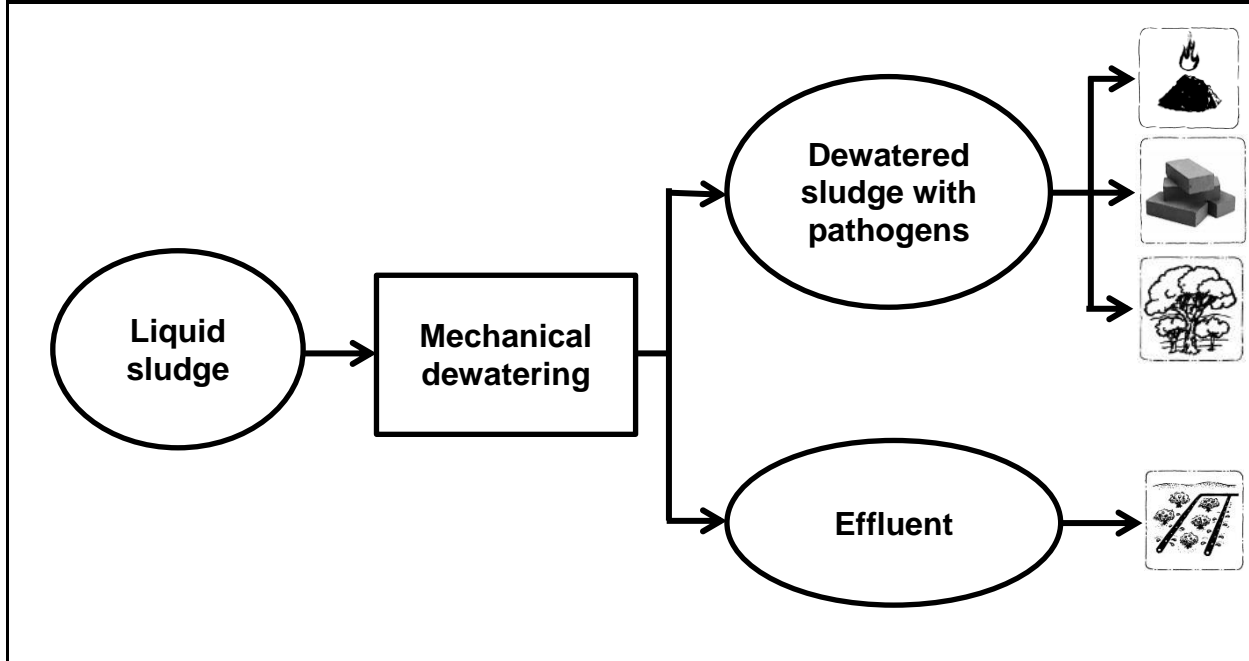
Screw press (Credit: Direct Industry)




Frame filter press (Credit: SuitaFiltech)

- **Design:** Mechanical dewatering technologies include belt filter press, frame filter press, screw press, and centrifuge. Mechanical forces dewater faecal sludge (for example, centrifugal force).
- **Operation:** Conditioners often need to be added to the faecal sludge before mechanical dewatering. Conditioners are products that help to dewater the sludge more efficiently.
- **Time and energy required:** Mechanical dewatering is fast (takes minutes to hours) and it needs less space, but it uses large amounts of energy.

Treatment Technology Description



| | | |
|------------------------------|---|--|
| Treatment Objectives | Pathogen Inactivation | Low |
| | Dewatering | High |
| | Stabilization/Nutrient Management | No |
| Pathogen Inactivation | / | <ul style="list-style-type: none"> No information is available about pathogen inactivation for mechanical dewatering. |
| Level of Development |  | <ul style="list-style-type: none"> Mechanical dewatering technologies are being transferred from wastewater treatment. There is limited experience in design, operation, and maintenance specifically for faecal sludge treatment. |

References

Strande, L., Ronteltap, M. & Brdjanovic, D. (2014). *Faecal sludge management: Systems approach for implementation and operation*. London, UK: IWA Publishing. Retrieved from: www.sandec.ch/fsm_book