

In the Round Dewatering

Patent #9,828,274

Drum specification data sheet

Size: Width is 90 inches
Standard Length is 20 feet
or optional 30 ft.
Mobile or Stationary/Augers

Materials:

Polished Stainless steel drum Powder coated frame
PVC filter tiles
Self-cleaning
Optional power washout nozzle

Mounted on roll-off frame with integrated
tie-down straps for easy transport
Power requirements: ¼ hp / ½ hp

Operation: Fill time: 1½–2½ hours
Run capacity: 18K–25K gal.
Can be filled multiple times before rotating
Operating speed: One revolution every 2 hours
Maximum speed: Two revolutions per hour Typical
dewatering time is overnight

Dried solids: Sewage Sludge range 15%–20%

Septic Sludge range 22%–40%

Grease Trap waste usually runs between that of sewage and
septic sludge. Dryness greatly impacted by exact conditions
and polymer used, but no liquid remains when finished.

Dried solids typically 4–7 tons



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Dewatering Drum 101

- Dewatering drum is mounted on a roll-off frame making it easily transported.
- Drum is supported by greaseable roller bearings.
- Drum rotates with roller chain.
- Gear box turns by variable speed motor.
- Low energy required: $\frac{1}{4}$ / $\frac{1}{2}$ horsepower motor.
- There are two doors on the back of the drum; one for inspection while filling, the other hinged door for unloading the dry material. There is an additional manhole port on the front for inspection as well.
- Three inch quick cam lock for loading liquid.
- Unit is lined with PVC filter tiles.
- Tiles are interlocking and replaceable.
- Tiles are self cleaning.
- Water is constantly being drained while the drum is being filled.
- Liquid can be added to drum several times before being rotated.
- Once full, or ready to be rotated, the inspection door must be secured before rotating unit.
- The ideal speed seems to be one revolution every 2 hours.
- The drum always rotates toward the gearbox.
- After approximately 5 revolutions the unit is ready to be loaded on a roll-off truck to be emptied.
- Drum must be rotated until dry sludge is parallel with the door opening.
- Once the material is centered in the bottom of the drum it must be secured for transport.
- Securing is achieved by tightening the ratchet with the straps hooked on the frame.
- To unload material the wing nuts that secure the door must be loosened (suggestion: loosening all but one wing nut while the drum is on the ground. This becomes more difficult as machine is higher up once positioned on truck).
- Once unit has been emptied it is ready to be rinsed out prior to the next fill.
- A normal rinse time would be 10 minutes with a garden hose and spray nozzle.
- Unit works well with any liquid that will flocculate.
- Drum is made completely of stainless steel and PVC.
- Results are very predictable and consistent (no surprises).

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