



The [Geotextile & Sludge Tubes](#) are commonly used for dewatering in Waste Water Treatment Projects (WWTO's), agricultural ponds, and in industrial lagoons. Their long exteriors and high filtering abilities allow them to effectively remove waste and other pollution from your water area. These economical tubes are available in several different configurations depending on the amount of surface area you have available.

Typical Features:

- Polypropylene or Polyester Fabric
- Woven Geotextile Material
- UV Stabilized
- Filling Ports
- Lengths Ranging up to 200 ft.
(other lengths available by order)

Geotextile Filter Tubes Technical Specifications

Length	50', 100', 150', 200'	Other lengths by special order
Width (laying flat)	7.5', 15', 22.5', 30', 37.5', 45'	
Circumference	15', 30', 45', 60', 75', 90'	
Filling Port Spacing	1, 2, or 3 Ports	Equally spaced depending on tube length and volume
Bracing Loop	Every 20' OC	



[Sludge Dewatering Tubes](#) can be made in many different configurations depending on the surface area you have available. Overall performance will, however, also be influenced by factors such as the percent of water content in the media, the size of the particles, the shrinkage when dry, and soil composition.

The drawing below shows the typical layout and specifications for a [geotextile sludge tube](#).



Size & Estimated Capacity per Tube		
Circumference	Tube Height	Tube Volume
15	3.5 ft.	0.6 cy/ft
30	5 ft.	2 cy/ft
45	5.5 ft.	3.5 cy/ft
60	6 ft.	5.4 cy/ft

Consideration & Material Options for Sludge Tubes

When planning a sludge tube program, it is necessary to consider dredging, pumping, and piping systems, as the sludge flow to these tubes must be controlled through a series of manifolds and valves. Other considerations include:

- Slurry/Sludge solids content
- Placement of inlets for distribution of sludge/solids in each tube
- Drainage of clear, free-flowing filtrate from each tube to retention area or reservoir
- Tube height should not exceed 5' and inflation rates of multiple tube applications
- Stability of additional layers of tubes (if filling a second layer tube)
- Safe locations for tubes with respect to potential hazards

When using these sludge tubes, you might also consider contacting a polymer specialist to treat the sludge. The correct use of a polymer can reduce the total time required for the project and provide huge savings on a sludge tube system. However, this tube system must be carefully monitored during the tube filling operation. Periodic breaker tests should be done to ensure peak performance and to ensure that TSS thresholds are achieved.

To determine the best fabric for your conditions, a simple hanging bag test can be done. This test helps determine the correct fabric and pore size necessary for your conditions (consideration should be given to time and available real estate)

Fabric	Woven Geotextile	UV Stable	Weight/Unit Area	Color
Polypropylene	Yes	Yes	16.6 oz/sqyd. (560 g/sq m)	Black
Polyester	Yes	Yes	17.7 oz/sqyd. (600 g/sq m)	White
Polyester	Yes	Yes	24 oz/sqyd (810 g/sq m)	White



Consideration & Material Options for Sludge Tubes

Sludge tubes are normally filled to 85% capacity with slurry mix capacity and then allowed to consolidate. Once consolidation has taken place the dewatering tubes are then refilled, and the cycle continues until the capacity of 85% consolidated solids is reached.

These sludge tubes should be left in place to dewater over a period of time to achieve the best volume reduction. Reduction rates depend on slurry, organics, and conditions. Once consolidated, the tube material can then be trucked to an off-site location for disposal or used as fill, compost, or in other beneficial ways.



Sludge Tube Benefits

- Requires minimal dewatering equipment
- Not labor intensive
- Can Run 24/7
- No complicated procedures or parts
- Typically the most economical approach to dewatering

