

ENVIROTUBES

a case study by Industrial Fabrics, Inc.

Industrial Fabrics, Inc.

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ENVIROTUBE CAPACITY CHART

Height Feet	15' Circumference per linear foot		30' Circumference per linear foot		45' Circumference per linear foot	
	Gallons	Cubic Yards	Gallons	Cubic Yards	Gallons	Cubic Yards
1	46	0.2	102	0.5	156	0.8
2	80	0.4	191	0.9	296	1.5
3	106	0.5	265	1.3	424	2.1
4	130	0.6	330	1.6	536	2.7
5			393	1.9	624	3.2
6			468	2.2	732	3.6
6 ½				2.3	781	3.9
7					822	4.1
7 ½					894*	4.4
8					900*	4.45

*Above safe efficient height for some materials

The above capacities are the actual displacement of the tube. The shrinkage factor will vary greatly from one material to another. Sand will not shrink from the insitu volume to be dredged. One CY of tube capacity will be needed for each CY of sand to be dredged. Organic or fine grain materials will shrink more than 50%. How much material can be put into a tube will depend on how many times the tube is pumped and how much time is allowed for dewatering. The dewatering time is affected by whether or not a polymer is used, although some materials will not dewater without a polymer being added. A shrink factor can be established with a shrink test using a hanging bag. The tube releases water faster if not pumped to full height; only pump the tube to full height on the last filling.



Photographed by David A. Wentland, P.E., Coastal Engineer, davewentland@gmail.com, Docks & Marinas, Inc.