

## Geotube® Dewatering Technology Allows Highest Pumping Heights

### Fabric Strength and Construction Provide Strength Needed For Extra Capacity, Faster Dewatering

TenCate develops and produces materials that function to increase performance, reduce cost, and deliver measurable results by working with our customers to provide advanced solutions. Now, products from TenCate Geotube can provide even more flexibility and value.

Thanks to developments in fabric and seaming technology, Geotube® units can now be pumped to higher maximum heights safely and effectively. In fact, TenCate Geotube products can be pumped to heights greater than any other dewatering container on the market.

TenCate Geotube's GT 500 dewatering fabric is a proprietary product that combines the advantages of superior strength and maximum filtration. GT500 is composed of high-tenacity polypropylene yarns, which are woven into a stable network so the yarns retain their relative position. GT500 is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

TenCate Geotube's patented seaming techniques are another reason for the strength of the completed units. With new technology that allows for both circumferential and linear seams, the fabric is bonded together with seams that rival the actual material in strength.

Geotube® units meet a variety of ASTM standards for fabric strength, seam strength, permeability, and puncture resistance. Details on Geotube® dewatering technology fabrics can be found in the product specification sheets located at [www.geotube.com](http://www.geotube.com). They are also available from any TenCate Geotube representative.



*Geotube® units are constructed using exceptionally strong fabric and patented seaming techniques. The result is a product that allows for pumping heights greater than any other product on the market. This allows for extra capacity and faster dewatering.*

**IMPORTANT NOTE:** Geotube® units should never be pumped to heights greater than the figure stenciled on the actual unit. To keep pumping heights at maximum efficiency, many organizations stretch a simple colored ribbon over the unit at the maximum pumping height. The operator can easily see when the unit is reaching its maximum capacity. They can also see when it is possible to increase pumping volume to reach the maximum height.

#### Additional Ways To Increase Dewatering Volume

In addition to allowing greater pumping heights, Geotube® dewatering technology also has flexibility in how units can be combined or stacked to accommodate additional volume in compact spaces.

*(More)*

Geotube® units may be stacked in pyramid configurations many levels high. As lower levels of Geotube® units are filled and dewatering is stopped, additional containers can be placed and secured on top of them to allow the dewatering operation to continue. In fact, some locations have used Geotube® units to build perimeters around lagoons or dewatering pads to raise their capacity. Geotube® units can remain in place after dewatering is completed (depending on the material being dewatered), and covered during reclamation. This allows the organization to more readily manage dewatering (particularly in large volumes) within a confined space.

Another method of increasing dewatering capacity involves manifolding several Geotube® units together into a single dewatering cell. As one unit reaches its maximum capacity, flow can be switched to the next container so that dewatering operations can continue uninterrupted.

A simple test can be used to determine how well the dewatering technology will work with a particular material. A TenCate Geotube representative can work with an organization to administer the test and to provide suggestions as to the best dewatering approaches—including the best ways to manage dewatering capacity.

To learn more, call 1-888-795-0808 or visit [www.geotube.com](http://www.geotube.com).



*A simple colored ribbon stretched over the top of a Geotube® unit can signal the operator when the unit reaches maximum pumping height.*



*Geotube® containers can be stacked several units high to increase dewatering capacity in a confined space.*



*Maximum allowed pumping height is printed on every Geotube® unit. Do not exceed.*

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## How Geotube® Dewatering Technology Works

Dewatering with Geotube® technology is a three-step process.

In the **confinement** stage, the Geotube® container is filled with dredged waste materials. The Geotube® container's unique fabric confines the fine grains of the material.

In the **dewatering** phase, excess water simply drains from the Geotube® container. The decanted water is often of a quality that can be reused or returned for processing or to native waterways without additional treatment.

In the final phase, **consolidation**, the solids continue to densify due to desiccation as residual water vapor escapes through the fabric. Volume reduction can be as high as 90 percent.



Step 1: Filling



Step 2: Dewatering



Step 3: Consolidation

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