TENCATE Geotube

Fast Facts
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Flexibility Makes Geotube® Dewatering Technology Ideal For Processing Facilities

For projects large and small, Geotube® dewatering technology helps manage waste streams and reduce costs.

Processing plants around the world all have something in common—they almost inevitably create waste streams that involve large amounts of water which must be treated before it can be released. The sheer volume of the material often means significant expense. And many systems for dewatering are complicated, expensive, and hard to adapt to different plant situations.

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. For the challenge of managing waste at processing plants, we offer a simple solution. It's called Geotube® dewatering technology, and it's been used in a broad range of industries. Geotube® dewatering technology can be a temporary or permanent operation, and it can reduce volume of waste materials as much as 90%. It can even be used to dewater hazardous materials.

At a fish processing plant, Geotube® dewatering technology was used to manage blood water wastes. The waste stream contained blood, lipids, and other organic solids. A Geotube® unit was set up as part of the plant operation to capture the solid material. This allowed the plant to eliminate an open pit containing the wastes.

These wastes were transferred to a homogenization tank where they were mixed with a simple, inexpensive polymer solution that caused the solids to bond together. The waste stream was then pumped into the Geotube® container, where the solids were captured and the water drained off.

The results were immediate. Testing showed that Geotube® dewatering technology captured 97% of all solids, reduced oils and fats by 97%, removed 80% of all BODs, and captured 92% of the nitrogen in the waste stream. The water was clean enough to release without further processing. The company reported savings in excess of $30,000 over the previous dewatering methods used.

At this fish processing plant, Geotube® dewatering technology was used to capture wastes in a blood water stream. The Geotube® container captured virtually all of the solids and allowed the facility to return the cleaned water to local streams without further treatment.

"One of the big advantages of Geotube® dewatering technology is that it can be sized to fit the project," notes Tom Stephens, Vice President of Business Development for TenCate, manufacturer of Geotube® dewatering technology. "If the operation requires massive amounts of capacity, we can do it. If a facility just needs dewatering once every quarter, we have the system for this, too."

Stephens said that often his company is contacted when plant operations expand and outpace the original capacity of lagoons or drying beds.

"We have plant managers who are faced with finding a dewatering solution or shutting down," he said. "Their drying beds or lagoons

(More)

Polymer added to the waste stream causes solids to bond together for additional dewatering efficiency. After processing through the Geotube® container , the effluent is clear and remarkably clean (right).

just aren't big enough. But one of the real values of Geotube® dewatering technology is that it can provide a quick lagoon cleanout solution, or it can add capacity by making drying beds much more efficient.

"In some cases, companies have dewatered the material in their lagoons using Geotube® dewatering technology, then used the solid-filled Geotube® dewatering containers as berms to expand the capacity of their lagoons. There are many ways to use the efficiency of this technology, and we work with companies to find the best solution for their operations."

Geotube® GT 500 dewatering fabric

Drying bed efficiency can be improved because Geotube® dewatering technology protects the dewatered solids from becoming saturated again in wet weather. And Geotube® containers can be stacked on top of each other to further add capacity to a facility.

Larger Geotube® containers, when filled, also make solids removal easy. A Geotube® container can simply be opened and material scooped out with a backhoe.

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.

To learn more, call 1-888-795-0808 or visit www.geotube.com.

Geotube® containers are available in a variety of sizes to provide flexible capacity. This one, a Geotube® MDS (mobile dewatering system) container, is in a roll off box for easy removal once dewatering is complete.

How Geotube® Dewatering Technology Works

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

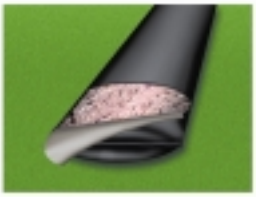
In the ***confinement*** stage, the Geotube® container is filled with dredged waste materials. The Geotube® container's unique fabric confines the fine grains of the material.

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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