ACE Geosynthetics

ACETube®

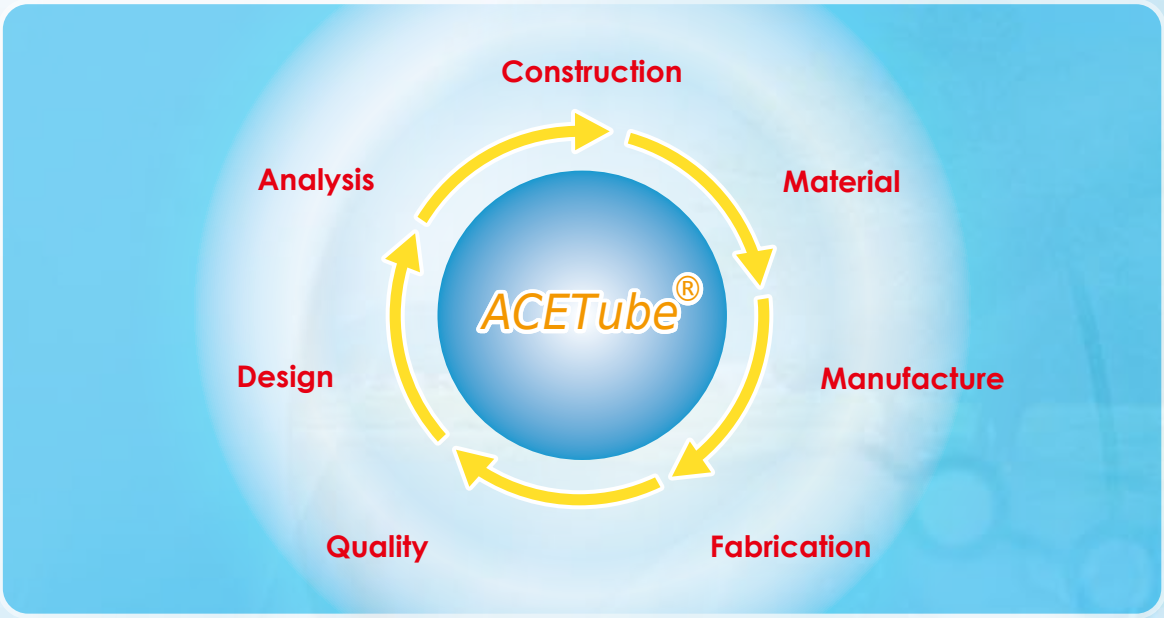
Description

ACETube® is seen as one of the most effectual manners to maintain an environmental and ecological friendly scenario while more and more engineers pay highly attention to Nature-Working-Method. ACETube®, an edges-and-ends sewn flexible configuration, is integrated with single or multiple pieces of high-strength synthetic fabric and is theoretically applicable to diverse dimensions. ACETube® industrial fabric technology acts the professional aid in the marine and environment engineering thanks to various and functional geotextile from ACE Geosynthetics.

Advantage

- Bi-axial strengthened fabrics (up to 300kN/m × 300kN/m) adequate for sizable tubular structure.
- Made–to-order specification and design to meet the project requirements.
- Great permeability to shorten the sedimentation and timely attain the required height.
- Fine stitching work sufficient to high pumping pressures.
- Good durability to serve the needed long service life in projects.
- Economical art in filling, construction and working duration.
- Diverse sizable dimensions in order to reach high-volume containment.
- Applicable to tolerable dewatering area without leveling down the performance.

Quality and Service



Δ Material

Strict incoming raw material inspection is executed daily. ACE truly believes the quality consistency must be commenced from the raw materials. Focusing upon the promised specifications and quality, ACE's duty is to seek and select the premier materials for manufacturing.

ΔManufacture

ACE has the most experienced technician team working in 3 shifts to take care of the entire manufacturing processes. To keep sharpening our manufacturing skills and studying means to advance the quality of products are the foremost missions of our crews.

Δ Fabrication

Besides good quality ACETex®, the sophisticated fabrication work grants added values to ACETube®. With decades experience, the fabrication team has actualized the well-organized and efficient operation procedures. By means of standardized behavior, ACE can supply first-rate products.

Δ Quality

ACE Geosynthetics has secured ISO 9001 certification. To achieve our high manufacturing quality control standards, intensive quality control process during manufacturing is practiced by professional QA & QC engineers. Moreover, we cooperate with certificated independent laboratories to prove our quality stability. ACE is just devoted to achieve high manufacturing quality to provide excellent product for our client.

Δ Design

To assure the best service for our clients, ACE counts on a team of professional engineers to provide the most economical and efficient solution to fulfill the client's need. We can give the most suitable suggestion on product application and supply the design proposal for our customer.

Δ Analysis

ACE can not only provide the design assistance but also do analysis by professional software, such as MSEW, ReSSA, ReSlope, Stedwin, GeoCoPs, etc., to check the stability of designed structures.

Δ Construction

To provide exhaustive services for our clients, ACE is also capable of consultation on construction. Project installation plan and installation checking list could be supplied. Even more, we can send our engineers to the client's job sites to do construction assistance.

Application

• Marine and Hydraulic Engineering

◊ Shoreline Protection

ACETube® industrial fabrics technology can definitely stabilize the natural barrier such as sand dune, revetment, and embankment. Using ACETube® is the very economical and efficient construction method for rapid coastline repair and restoration.

◊ Beach Nourishment

ACETube® industrial fabrics technology can be designed as submerged breakwaters, groins, artificial reef…etc.
ACETube® rebuilds a stable environment of waters owing to reduce the wave energy direct attack the beach and also reduce drift sand.

◊ Land Reclamation

ACETube® can create a natural habitat as a cofferdam. ACETube® industrial fabrics technology creates a cost-effective construction option and preserves an intact nature land for the coexistence of human and species.

◊ Structure Protection

ACETube® industrial fabrics technology can be the best anti-erosion solution, such as beachside house, bridge pier or pipeline protection.
ACETube® is capable of acting one immediate, important as well as helpful solution in temporary structures or emergency repair.

Application

• Environment Engineering

◊ Industrial Waste

Considerable amounts of sludge from mining, boiler ash, paper mill, chemical factory, etc. are waiting for being processed in industry. With the increase of sediments, the capacity of sludge lagoon is decreasing ; lots of money is spent for lagoon emptying and sediments removal.

ACETube® can be used in the waste dewatering application with the benefit of reducing 80 percent spaces for sediments volume and lowering the transportation and disposal cost.

◊ Agricultural Waste

Agricultural waste comes from livestock, aquaculture, flushing barns, etc. Discharging the waste directly will pollute environment seriously.

ACETube® can treat the agricultural waste without hardware sewage treatment facilities and costly mechanical dewatering procedure. Finally, the collected dry solids can be recycled as fertilizer.

◊ Fluvio-Marine Sediments

Sediments in reservoir, lagoon, river and outfall often affect their functionality and serviceability of the system. Possible situations are such as service life decrease in reservoir, transportation and shipping failure in rivers or channels. In order to sustain their functions and services, sediments are supposed to be cleaned out.

The discarded sediments can be filled into ACETube® placed in the field as a protection structure or transported to landfill. ACETube® even can be dropped at chosen place underwater by split barge. ACETube® is able to dredge sediments in environment- friendly method; in addition, ACETube® also acts an excellent helper in civil engineering.

Case Study

Coastal Dune Stabilization Using ACETube® In Mexico

Application：Coastal Dune Stabilization
Location：Mexican Yucatan Peninsula

One application ACE Geosynthetics had done in Mexico was to protect beaches and coastal dunes at Las Coloradas from further damage caused by Hurricanes. The lagoons were used to produce salt and they were major income source for that region. Since the lagoons had an important economical benefit, protecting the region while offering an environmental and economical solution was vital.

Shore protection adopted beach dune reinforcement using 30m long and 1.2 m height ACETube® filled with sand. Dune has worked as coastline regression limit, avoiding dune failures and preventing sea water from entering salt production lagoons during extreme events.

In Las Coloradas salt production lagoon project where the residents make a living, ACETube® is utilized as the protection to soothe harms from hurricanes and to sustain the economical value of this lagoon.

Case Study

Recovering Oil-Pipe Foundation Using ACETube® As Part Of An Integral Beach Erosion Control Project.

Application：Oil Pipeline Protection
Location：Dos Bocas, Tabasco, Mexico

ACETube® technology was adopted as part of an integral solution for beach erosion problem at Dos Bocas PEMEX marine facilities. In order to protect oil pipelines from danger, various dimensions of sand filled ACETube® were designed to function as the foundation for oil conduction pipelines to reduce the risks of destruction while the erosion was occurred in the surf zone.

Along 1.9 Km long coastline, ACETube® also played a role of submerged breakwater and the design was composed of 7.8m circumference principal ACETube® seamed with 2.5m length scour apron and smaller anchor tube (1.4m circumference).

Totally 62000sqm Beach nourishment additionally enhanced the stability of the shoreline and oil conduction pipelines. Submerged breakwater decreased long wave transport rates and minimized sand losses. After construction, ACETube® already provided well performance in erosion control.

Case Study

Dewatering Application In Industrial Wastewater Treatment

Application：Industrial Wastewater Treatment
Location：Water Treatment Plant, Taiwan

ACETube® containment dewatering system provides a cost effective method for the industrial sludge disposal. ACETube®, made from high strength polypropylene fabric, is engineered to drain effluent water out of the fabrics through the pores while solids are retained. Before the wastewater treatment process is wholly completed, flocculating or coagulating operations are required.

Design was composed by a 8.6m circumference and 20m length ACETube®. Results showed that ACETube® dewatering system performed very well in filtration as the volume of sediments was almost 80 percent. Furthermore, after dewatering, the water content of the containment solid also was down to 90 percent immediately.

The Overwhelming Construction Breakthrough in Marine and Environment Applications

Taking the advantage of the structure flexibility, ACETube® are permitted to readily adapt for varied landforms, field conditions, sewage treatment plants as well. Despite sand or mortar filled ACETube® are taken as semi-permanent structure in the marine engineering applications, ACE Geosynthetics never stop developing the better quality ACETube® refraining from harms made from the artificiality or the natural world in order to furnish the Earth with one of the top environment protectors!

The proficient and efficient construction mode is successfully conducted by ACETube® because of ACE Geosynthetics.

Absolutely ACETube®!

Note: The information provided herein is accurate to the best knowledge of the company and is given out in good faith. All the information contained is intended as a general guide only to use of such products and we do not accept liability for any loss or damage however arising, which results directly or indirectly from use of such information. ACE Geosynthetics has a policy of continuous development thus information and product specification may change without notice.

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