



## Case Study

application | Marina Construction  
location | Stella Maris, Ecuador  
product | Geotube system

Stella Maris, a luxury resort on the Pacific Coast of Ecuador, used Geotube systems to construct the cores of two jetties because there was not a nearby source for rock. Geotube systems were filled with sand dredged from the ocean at the site. The units were stacked in a "pyramid" method to build up the jetty core. To keep the individual 20 meter long Geotube systems straight during filling (while being pounded by waves), a steel position frame was used. A total of 2,000 lin/m of 13,7 m circumference Geotube systems form the core of the jetties which were then covered with rock to provide permanent protection. The Geotube systems were strong enough so that heavy construction machinery could drive on top as the structures were being built.

## Jetties Versatility in Construction

Geotube systems are often used for jetty construction, because of its flexibility in design, cost effectiveness and speed of installation. In many areas, there is not enough rock nearby to allow jetties to be built from stone, and Geotube systems can be used so that sand and soil from the immediate area produce a stable structure. This can save significant amounts of money over trucking in materials.

Geotube systems also allow great versatility in construction. Because units can be custom sized to various lengths and circumferences, less material may be needed. Also, because Geotube systems can be filled quickly in place, construction time can be reduced dramatically.



Geotube system being held in place by steel frame as it is filled.

