

Sock Applications in Florida

In Florida, one of the main requirements to any construction project is the need to remove groundwater before construction can begin. Florida's water table is extremely close to the surface, such that groundwater can cause excavation sites, or any jobsite where digging is involved, to become flooded if it is not removed properly beforehand.

One process of removing groundwater is using sock - perforated hose that is buried underground around the perimeter of or in proximity to the jobsite. Once installed, and connected to a pump with large amounts of air handling ability, the groundwater is sucked in the perforated hose, and is discharged through the pump to a more desirable location.

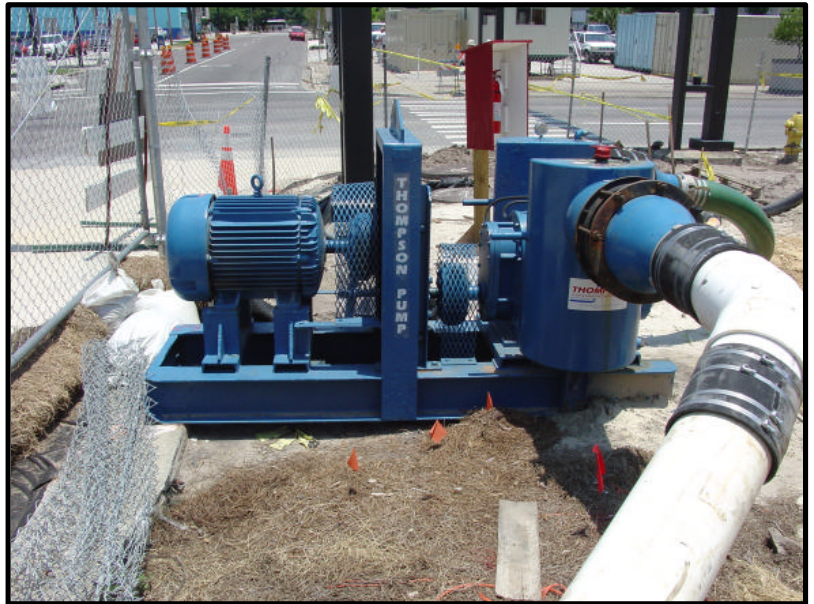
Sock applications are very prevalent in Florida, and serve as a demonstration of how sock applications appear in many different types of construction.



John Woody, Inc., of Jacksonville, FL, uses a Thompson Rotary Wellpoint Pump (above left). A Thompson Dry Prime Vacuum-Assisted Trash Pump (above right) was used in a reclaimed water line installation.

A sock system removed the groundwater around a the 24" water line (left) to be installed following miles of power lines in the area as part of a massive reclaimed water line project.

The reclaimed water provides water for agricultural-type needs, such as irrigation systems and water for farms and ferneries.



A Thompson 12-inch Rotary Wellpoint Pump powered by an electric motor (above), uses a sock system to dewater the ground to allow excavation for a new public library in downtown Jacksonville, FL.

Due to the close proximity of other buildings in the busy metro area, large sheets of connectable metal sheeting were installed around the jobsite, using vibration to shake the sheeting underground.

Once the sheeting was installed, the Rotary Wellpoint Pump and the sock system removed the groundwater, and allowed excavation to begin.



Construction of the lower level walls of the library are shown below left.



Foley & Associates relied on Thompson Pump to provide a means of groundwater removal to allow for construction of the Marbello Condominiums in Jacksonville, FL.

The construction site was located right on Jacksonville Beach, and the seawater and unforeseeable heavy rains that pelted the area proved to be a challenge.

Thompson Pump provided two different lines of sock that fed into one 12-inch Rotary Wellpoint Pump (above left and right). The groundwater was removed successfully to allow for construction (middle left).

With approval from Jacksonville's Department of Environmental Protection, the groundwater was discharged back into the Atlantic Ocean through discharge hose buried underneath the sand. Around the discharge point a fence was installed to protect beach-goers from the discharging water (lower left).



Thompson Pump has supplied more than 32 pumps for a massive sock dewatering project being done as part of the creation of manmade lakes in the lower section of the Old Palm Golf Course in West Palm Beach, Florida.

The main application required that the groundwater be lowered to allow the installation of a thick, rubber lining to be placed at the bottom of each lake once they were excavated.

Thompson Pumps were installed throughout the jobsite to perform their specific applications located in different areas within the jobsite. The Rotary Wellpoint Pumps that were used removed the groundwater to depths around 25' to allow for the excavation of the lake, and eventually installing the lining of the lake itself.

Once the ground water is completely removed, crews would then begin to lay the thick, rubber liner to protect the integrity of the lake. A crew of more than 30 people was hired directly from the liner manufacturer to ensure that it was installed properly.

A total of 300,000 sq. yards (60 acres) of liner will be used once the project is complete.