

Thompson Pump Wellpoints Myrtle Beach, SC for "The Margate"



A Thompson electric motor driven 12-inch Rotary Wellpoint Pump was used for the main dewatering with a diesel powered 12-inch Rotary Wellpoint available for standby.

Myrtle Beach is one of South Carolina's busiest tourist destinations. Throughout the year, visitors come to enjoy its sunny beach on the Atlantic, and its other recreation, entertainment, shopping, and dining opportunities. With such a bustling community, Myrtle Beach has a great need for sufficient housing. Recently, plans were made to build the tallest high-rise in a community of condominiums overlooking the Atlantic Ocean called "The Margate." The Margate would be 29-stories tall and would include two parking decks with condominiums situated between them.

Before major construction could begin on the site, water had to be removed from the soil in order to maintain sturdy ground conditions and eliminate any water damage after construction was complete. Through a local dewatering contractor, Thompson Pump's South Carolina Branch, located in Raveland, SC, was contacted to assist in devising a dewatering system.

Thompson Pump representatives had two options available that would make this job a success: sock dewatering and wellpoint dewatering.

Dewatering by wellpointing involves installing, or jetting, a series of small wells (wellpoints) into the ground, connecting the small wells to a common manifold (header pipe) and connecting the manifold to a pump capable of producing large amounts of vacuum – thereby closing the pump system. The vacuum produced by the pump carries to the wellpoints in the ground and water is sucked through very thin slits cut into the wellpoints, through the manifold and out the discharge side of the pump.

Another form of underground dewatering is sock. Sock is similar to wellpointing, but instead of a series of small wells, sock involves a long, black hose with perforations that accept the underground water. Installation would begin with trenching the ground along the area where dewatering was needed. The sock is then laid horizontally in the trench and buried underground.



Thompson Pump's Rotary Wellpoint Pumps provide air handling that can overcome the most difficult soil conditions.

Ground conditions play a major role in determining which type of dewatering method should be used. Soil condition testing revealed that the soil contained large amounts of peat. The peat present in the soil would prevent sock dewatering from being used because the peat may have blocked the perforations in the sock hose.

Thompson Pump recommended that a wellpoint system be installed for the first phase of construction (condominiums), then moved to the second and third phases (parking garages). Thompson Pump provided one electric motor driven 12-inch Rotary Wellpoint Pump to handle the majority of the operation, and a diesel engine driven 12-inch Rotary Wellpoint Pump, which was used for standby.

The wellpoint system used for dewatering around each of the three construction sites was as large as 1,100-feet long in order to surround the construction perimeters with wellpoints. Thompson Pump supplied all of the wellpoints, riser pipe, header pipe, and other accessories to make each wellpoint operation a success.

The peat that was found in the soil retains water more than common soil, therefore the wellpoints had to be installed strategically in order to be assured that the site was thoroughly dewatered. It was recommended by Thompson Pump's representative to alternate the depths of the wellpoints to 12' and 23' respectively. This would allow thorough dewatering through the peat and deep enough and below the sub grade of the structure.

Knowing how to overcome soil condition problems proved to be the difference between a successful and an unsuccessful project. Thompson Pump has provided wellpointing expertise for more than 3 decades. By recognizing and overcoming the soil conditions, and providing all of the equipment necessary, the dewatering for the construction of The Margate proved successful and construction could begin.



An overview of the entire construction site.

Thompson's Rotary Pumps can be seen in the upper left-hand corner, dewatering one of the site for one of the parking garages.