CASE STUDY

Port of Fundy

Marine Jetty Concrete Pile Protection

Project Data

Location	Eastern Canada
Completion	2007
Project Type	Jetty Pile Protection
Products Used	SeaShield™ Series 500 / Fiber-Form Jacket / 550 Epoxy Grout / 525 Epoxy / Petrolatum Tape
Contractor or Applied By	Maintenance Personnel

Project Details

Although the Canadian coastline is one of the most extensive in the world, very little of the vast coast itself is developed with ports, loading structures and docking facilities. This lack of development somewhat limits the large potential for Denso Seashield systems sales. Denso Canada has however been extremely successful of late in capturing a large percentage of the available piling protection jobs on both the East and West Coast. Some of this work has involved Series 100, Series 2000HD and Series 90, as well as Series 500. The most recent project was located on the East Coast of Canada in what is known as the Bay of Fundy. This particular bay has some of the worlds' largest tidal movements at approximately 30'. This job involved the application of Series 500 jackets and the pumping of 550 epoxy and aggregate. The job was very unique due to the characteristics of the tidal movement in this area of Canada. Twice a day we experience high and low tide, over a distance of approximately 30'. Over a 12-hour period, the tide moves from a position of high tide to a position of low tide, with a brief resting period in between of approximately 15-20 minutes.

When the high tide begins to drop, or when the low tide begins to rise, however, the rate of change is 4'/hour, which is extremely fast for working in the water and applying jackets, pumping aggregate etc. This job involved working from a small boat tied to the piling which added to the difficulty of the job. The project involves the protection of approximately 200 existing concrete piles that have badly eroded down. Some of the concrete grout is eroded down to the original steel piling, making the annulus anywhere from 3/4 " up to 6" in some cases. The job consisted of installing the jackets on stagings, as the pile protection was required part way up the pile, approximately 12' from the mud line. The 10' long jackets were then filled with aggregate by pumping from the upper deck where the epoxy and aggregate were mixed, for a distance of 63' from the pump down to the injection ports below the deck. Overall, the job was very successful and we are looking forward to continuing with more piling encapsulation at this site in 2007.

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