

PROJECT BRIEF

Structural Retrofit to existing Concrete Spun Piles of Marine Jetties for Thai Nippon Steel Engineering and Construction Co. Ltd with the TYFO® Fibrwrap® System

THAILAND



Bangpakong
Thailand
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With growth in its steel fabrication and engineering business, the Thai Nippon Steel Engineering and Construction Co., Ltd. was faced with a challenging task to upgrade its existing jetties to support heavier steel structures to be loaded onto ships from these jetties. Its Bangpakong Yard located on the south-eastern outskirts of Bangkok was ear-marked for the upgrading and enhancement of its existing 3 jetties.

Under this upgrading program, a total of 95 concrete spun piles were needed to be enhanced to increase their axial, shear and flexural capacities to cater to the higher load consideration. The proposal to enhance the spun piles by conventional strengthening techniques such as concrete jacketing and steel plate bonding proved to be an uphill task as the spun piles are fully submerged most of the time. There was a daily average of only 4 to 6 hours of low-tide to allow work to be carried out.

As such, Fyfe Asia's Tyfo® SW Fibrwrap® System seemed to be the only possible solution to for upgrading requirement as this state-of-the-art advanced strengthening technology is easy to install and allows strengthening work to be carried out regardless of high or low tide. The unique features of the System gained the confidence of the client and the entire upgrading project was successfully completed within the required time-frame indicated.

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