



CASE STUDY

Hychem solution extends critical BlueScope Seawall for another 50 years

SUMMARY

Client

BlueScope Steel

Location

Port Kembla, New South Wales

Challenge

An existing steel sheet pile wall required urgent structural repair and long-term corrosion protection to ensure the integrity of a key shipping facility.

Sector

Ports & Marine

Solution

SPiRe® (Sheet Pile Repair) FRP System.

Outcome

A 50-year design life was achieved with an aesthetically pleasing repair that was completed on time and budget with zero operational downtime.

Products

SPiRe®

Hychem provided an advanced structural strengthening solution to remediate a critical steel sheet pile wall for BlueScope at their Port Kembla facility.

Utilising the innovative SPiRe® (Sheet Pile Repair) composite system, the project successfully enhanced the wall's structural capacity and provided robust, long-term corrosion protection without any disruption to the port's shipping operations.

The challenge

BlueScope Steel identified an urgent need to address corrosion and structural degradation on a vital sheet pile wall at their Port Kembla shipping terminal. The solution had to provide not only a fully structural repair but also long-term corrosion protection in the harsh marine environment. Crucially, the remediation work could not disrupt the continuous operation of the facility, demanding an efficient, non-invasive system that could be installed in an active port.



The engineered solution

Hychem's SPiRe® system by QuakeWrap was selected as the ideal technology for this high-stakes application. SPiRe® consists of lightweight, prefabricated Fibre-Reinforced Polymer (FRP) panels that are installed to create a formwork around the existing wall, which is then filled with grout. This composite system both restores structural capacity and creates an impermeable, corrosion-proof barrier. The system was installed by the specialist marine contractor, Port & Hunter Commercial Diving, ensuring a safe and efficient application in the tidal zone.

The outcome

The project successfully delivered a robust structural repair that is engineered to provide a 50-year service life. The installation was completed on time and within budget, with no disruption to BlueScope's shipping operations, demonstrating the efficiency of the SPiRe system. The result was a structurally sound and aesthetically pleasing seawall, fully protected from the aggressive marine environment for decades to come.

