



Overcoming Geotechnical Challenges with Hollow Bars in Brazil

Case Study

The luxury Rhodes Building, located in Piçarras beach, successfully utilized DYWIDAG's DYWI Drill R38-500 for temporary retaining wall anchors, overcoming inherent geotechnical challenges in poor soil conditions. This not only enhanced the stability of the construction but also significantly reduced the project timeline.

PRODUCTS

DYWI Drill Hollow Bar Soil Nail

LOCATION

Brazil

TIMELINE

12-2022 - 02-2023

SCOPE

Supply

Technical Support

OWNER

Daxo Incorporadora

CONSULTING ENGINEERS

Born Sales Engenharia

GENERAL CONTRACTOR

PRETECH Fundações

Context

The construction of the Rhodes Residential Building was set amidst challenging geotechnical conditions due to the high water table prevalent in the region. The poor soil conditions, primarily composed of saturated soils, posed an immense challenge for the traditional installation of anchors for retaining walls. These conditions could cause the soil to collapse during conventional drilling, posing a significant risk to the stability of the project.

Solution

The project team, in conjunction with DYWIDAG, opted to use the DYWI Drill R38-500 system. This innovative solution allows drilling, jetting grout, and installation of the anchors in a single, unified process. The DYWI Drill anchors were used as both drill rod and grout conduit, with installation performed by simultaneous drilling and jetting grout. Consequently, this resolved the prevalent issue of borehole instability, making the project feasible and reducing the timeline significantly. A total of 136 temporary anchors were supplied for the retaining wall of the basement excavation, ensuring a secure foundation for the Rhodes luxury apartment building.

