

Palm Deira Access Bridge (UAE)



Project description

Palm Deira is the largest man-made island in the world. The island will accommodate more than one million people. The project area is 12.5 km by 7.5 km with 18 fronds and located alongside Dubai Deira. The entire Palm Deira development will add a coastline of 226 km to Dubai.

According to traffic studies, the traffic volumes generated by the project are expected to be 110,000 journeys during the peak time. This estimation requires the provision of a massive infrastructure of roads and public transport systems.

Deira Island, at the base of Palm Deira, has three 12-lane bridges that connect the island to mainland Deira between the mouth of Dubai Creek and Port Hamriya Deira. The project will include the opening of a waterway underneath the bridge to serve the Marina and the new Fish Market.

mageba scope

mageba supplied five TENSA®MODULAR expansion joints and TENSA®GRIP single gap joints in accordance with AASHTO for the new bridge connecting the island with the mainland. The total length of the installed joints was 111 m.

The expansion joints were fully covered by mageba's fatigue test of 6,000,000 loading cycles at ATLSS Lehigh University as per AASHTO Appendix A19.

For one of the abutments mageba shipped a special design of the TENSA®MODULAR LR2 expansion joints as the recess was too small for a regular LR2 type. This joint was manufactured with a full section joints beam to accommodate all movements and to fit in the small recess.

Highlights & Facts

mageba Products:

Type: TENSA®MODULAR expansion joints of types LR6, LR5, LR4, LR2, TENSA®GRIP RS single gap joints

Installation: 2016

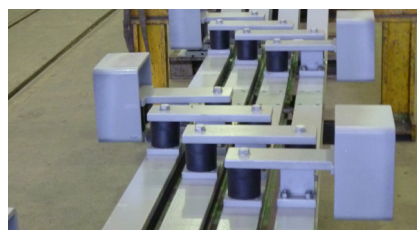
Structure:

City: Dubai
Country: United Arab Emirates
Type: Concrete bridge
Built: 2016
Owner: Road and Transport Authority Dubai
Contractor: BESIX
Engineer: Parsons Overseas Ltd.

The island is located at the shores of Dubai



The control system of the installed TENSA®MODULAR LR expansion joints



One of the modular joints in the factory

