

Sakarya State Hospital (Turkey)



Project description

Sakarya State Hospital in the Turkish city of Sakarya is currently being built with a capacity of 200 beds. Considering the potential for seismic activity in this part of Turkey, a very strong focus was placed on designing the hospital to survive strong earthquakes. This is achieved by a combination of seismic isolation and damping. An array of seismic isolator bearings at basement level supports the hospital in normal circumstances while also isolating it from any seismic ground movements that may arise. And shock absorbers at strategic locations around the structure will dampen any movements that are nonetheless experienced by the supported structure, dissipating the seismic energy and further reducing the risk of damage.

mageba scope

The isolation of the hospital's main structure from seismic ground movements is achieved by RESTON®PENDULUM seismic isolators – 198 in total. These isolators – also known as a curved surface sliders – are designed to accommodate displacements of ± 450 mm, and to carry vertical loads of up to 12,400 kN.

The damping of seismic energy is achieved by 30 RESTON®SA shock absorbers, designed for maximum forces of 790 kN and with a stroke of ± 450 mm.

Highlights & Facts

mageba Products:

Type: RESTON®PENDULUM seismic isolators, RESTON®SA shock absorbers

Features: 198 isolators and 30 dampers

Installation: 2017

Structure:

City: Sakarya

Country: Turkey

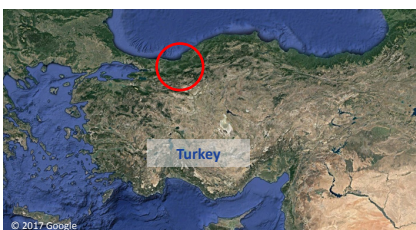
Type: Hospital

Completion: 2018

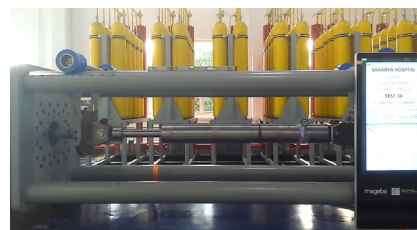
Owner: Turkish Ministry of Health

Contractor: Gökyol Construction and Industry A.Ş.

The new hospital is located in north-western Turkey, close to Istanbul



Testing of a RESTON®SA shock absorber in SISMALAB



Precise levelling of a RESTON®PENDULUM seismic isolator before grouting of anchors to hold in place

