

Kerameikou 51 Building (Greece)



Project description

Kerameikou 51 is a 1970s multi-storey residential building in Athens, Greece. In 2011, the building was extensively renovated, with internal partitions removed to create larger living spaces. The work also included seismic upgrading, in order to enable the building to withstand the region's high seismic activity.

In order to compensate for the removed internal supports, the structure was equipped with new steel bracing. To achieve the desired seismic performance, shock absorbers were also to be added, to damp the sudden forces and dissipate the excess energy introduced by the earthquake into the structure.

mageba scope

As part of the renovation works, the building was equipped with eight RESTON®SA shock absorbers (dampers), to provide the required damping and dissipation of energy to the structure in the event of an earthquake. These were designed for a maximum force of 250 kN, with a maximum stroke of +/- 50mm.

Due to the limited installation space in the building, the design of the dampers was optimised to reduce their size, also making them easier to install. The devices were also designed to withstand multiple events and to be virtually maintenance free, thanks to the use of high-durability, high-performance materials and components.

Highlights & facts

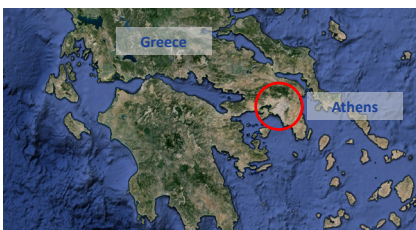
mageba products:

Type:	RESTON®SA shock absorbers
Force:	250 kN
Stroke:	+/- 50 mm
Installation:	2011

Structures:

City:	Athens
Country:	Greece
Type:	Residential building
Built:	1970s
Renovated:	2011

The building is located in Athens, capital of Greece and an area of high seismic activity



A RESTON®SA shock absorber as fabricated, designed for a seismic force of 250 kN



Illustration showing the interaction between the building's new steel bracing and the dampers

