



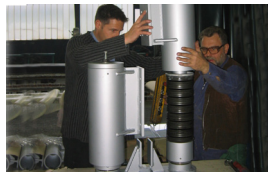
Seismic Protection

mageba seismic protection devices – for reliable preservation of structures



RESTON® SDD Spring Disc Damper

protect, damp, resist



mageba **USA**



Product Characteristics & Benefits

Description

mageba RESTON®SDD spring disc dampers consist primarily of pillars/packages of disc springs featuring high load capacity, high-quality materials and excellent durability.

RESTON®SDD spring disc dampers are typically used in structures which require dynamic compressive loads to be transmitted and damped. The devices require little installation space and fulfill two main functions:

- Damping of introduced forces (linear, regressive or progressive)
- Ensuring a pre-defined maximum spring stroke for all load impacts

Applications

The range of possible applications of RESTON®SDD spring disc dampers is extensive.

The devices are widely used in bridge and general civil engineering structures, e.g. to stabilize the hanger cables of tied arch bridges. They are also widely used for industrial applications, such as automotive technology and chair lift systems. In building construction, RESTON®SDD are mainly installed in specialized structures that need permanently defined spring strokes such as façade construction, pre-stressing of cable structures and the like.

Design

A typical spring disc damper consists of disc-shaped, curved spring elements which are assembled to form a pillar. Depending on the arrangement of the spring elements, the absorption force and the spring stroke can be adjusted. When installing spring disc dampers, the spring elements are normally pre-stressed. The installation length is determined by the maximum spring stroke and maximum force. The load deflection curve can be designed as linear, regressive or progressive, depending on the client's requirements.

RESTON®SDD are fabricated using high-quality materials such as ASTM 6150 with shot-blasted surface according to ASTM A125 to ensure excellent durability. Consequently, the dampers can facilitate up to 2 million load changes.

Testing

mageba RESTON®SDD and their disc springs conform to ASTM A125, and have also been tested independently by EMPA (Swiss Federal Institute for Material Testing) for their load capacity and spring stiffness. This testing confirms the characteristics and the durability of the product.

Quality

For five decades, mageba products have proven their worth in thousands of structures under the most demanding conditions. In addition to the product properties, the extensive experience of mageba's well-qualified manufacturing and installation staff also contributes to the high quality and durability of the products.

mageba has a process-orientated quality system. In addition, its quality is regularly inspected by independent testing institutes. mageba factories are AISC certified for Major Bridges (CPT, STD, SPE) and also maintain AWS certifications for D1.1 and D1.5.

Customer Support

Our product specialists will be pleased to advise you in the selection of the optimal solution for your project, and to provide you with a quotation.

On our website, www.magebausa.com, you can find further product information, including reference lists and tender documentation.



1 Shopping Center, Cologne, Germany (Architect: Renzo Piano), façade fitted with RESTON®SDD
2 Testing of a spring disc damper



mageba Seismic Protection Devices



RESTON®SA & STU



RESTON®PSD



RESTON®PENDULUM



LASTO®LRB & HDRB

mageba USA

engineering connections®