mageba structural bearings – mastering loads and movements

RESTON®LINEAR Linear Bearings

durable, well-proven, strong

mageba

Design & Types

Principle and application

mageba RESTON®LINEAR bearings transmit vertical loads and – depending on the type – as well horizontal loads. Because of the dished tilting plate they can also absorb load deflection of the bridge beam provided that it is perpendicular to the axis of tilt.

No rotation or deflection may arise transversely to the longitudinal bridge axis, i.e. parallel to the line of tilt, as the force transfer would be reduced from a line to a concentrated point. Thus, RESTON®LINEAR bearings are only suitable if the transverse stiffness of the bridge is large enough that no relevant torsion or transverse inclination of the structure is possible.

RESTON®LINEAR Type L

The fixed linear bearings of Type L consist of two steel plates arranged one above the other whereby one plate is dished as a tilting plate. The bearings can transmit vertical and horizontal loads in every direction. RESTON®LINEAR Type L linear bearings are used mainly in conjunction with linear bearings of Type LGe and LGa.

Upon request, the bearings can also be equipped with upper and lower anchor plates.

RESTON®LINEAR Type LGe

Linear bearings of Type LGe allow further movements of the superstructure in one direction. The bearings consist of three steel plates mounted one above the other. The centre plate which is also provided with PTFE surfacing acts as a tilting bar and in conjunction with the sliding plate on top permits movements of the superstructure. Horizontal loads are absorbed by the guide bars which can be straight or inclined depending on the bridge abutment orientation.

Upon request, the bearings can also be equipped with upper and lower anchor plates.

RESTON®LINEAR Type LGa

Linear bearings of Type LGa further allow movements of the superstructure in every direction. They consist of three steel plates mounted one above the other. The centre plate which is also provided with PTFE surfacing acts as a tilting bar and in conjunction with the sliding plate on top permits movements of the superstructure.

Upon request, the bearings can also be equipped with upper and lower anchor plates.

CE Conformity

RESTON®LINEAR bearings that are designed and manufactured in accordance with EN 1337 are marked with the CE label. This indicates that they fulfil all requirements of the standard and that the manufacturing facilities are systematically and regularly inspected by an independent certification body.

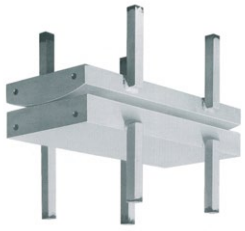
Quality

Over the past five decades, mageba has supplied over 50,000 structural bearings for projects all around the world. The quality and durability of mageba bearings is thus ensured not only by their well-proven product properties, but also by the extensive experience of our personnel.

mageba operates a process-oriented quality system that is certified in accordance with ISO 9001:2008. Quality is also regularly checked by independent bodies such as the materials testing institute (MPA) of the University of Stuttgart. mageba factories are approved for welding in accordance with ISO 3834-2, and certified in accordance with the current steel construction standard EN 1090.

Support

Our experienced product specialists are always ready to provide you with further information and to advise you in selecting the optimal solution for your project. You can also find further product information, including data sheets with standard bearing dimensions and reference lists, at **mageba-group.com**.



RESTON®LINEAR Type L

RESTON®LINEAR Type LGe

RESTON®LINEAR Type LGa

mageba structural bearings

Pot bearings

Spherical bearings

Deformation bearings

Lifting/measuning bearing

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mageba-group.com

engineering connections®

mageba sa - Solistrasse 68 - 8180 Bulach - Switzerland - T +41 44 872 40 50 - info.ch@mageba-group.com