



Structural bearings

Infrastructure | Buildings | Industrial structures

# 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 – horizontal loads as well. 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.

Rotations or deflections transverse to the longitudinal bridge axis, i.e. parallel to the line of tilt, cannot be accommodated by RESTON®LINEAR bearings 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 center 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

mageba RESTON®LINEAR bearings are designed and manufactured in accordance with “AASHTO LRFD Bridge Construction Specifications”.

Alternatively, RESTON®LINEAR bearings can also be designed and manufactured in accordance with European Standard EN 1337 and the product specific European approval (ETA-11/0453). Bearings are then marked with the CE mark of conformity, which confirms that they satisfy all requirements of this standard, without exception.

All necessary type testing performed on RESTON®LINEAR devices are carried out at an independent testing facility and fully supervised by a certified 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 our well-proven product properties, but also by the extensive experience of our personnel.

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.

## 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](http://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/Measuring Bearing

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