



Expansion joints

# mageba expansion joints – for lasting user comfort



Donaustadt bridge, Vienna

## TENSA® RAIL RSU

proven, durable, safe



mageba



## Expansion joints

# Product characteristics & benefits

### Concept

mageba TENSA®RAIL RSU single gap expansion joints allow for movements up to 350mm as a standard. They are made of steel edge profiles and an elastomeric sealing fixed between the profiles. For larger movements they are fitted with a drainage channel made of EPDM or stainless steel. The bridge's water insulation system is directly connected to the edge profiles which provide a horizontal connection surface for this purpose. Thus, the joint allows for a 100% continuously waterproof system. The edge profiles are connected by means of studs or loop anchorage with the bridge superstructure in a permanent and fatigue-proof way. The joint's gap is protected from the ingress of dirt or ballast by a cover plate. The cover plate is fixed on one side to the edge profile while the other side rests and slides on the opposite edge profile.

### Range of application

TENSA®RAIL RSU expansion joints are suitable for the use in metro or railway bridges or segments with and without ballast. The ballast either lies directly on the joint or, ideally, on an insulation mat introduced between the ballast and the bridge slab. mageba is in a position to provide the necessary insulation mats in combination with the TENSA®RAIL expansion joints as a package offer.

TENSA®RAIL RSU expansion joints have been awarded in Austria with the national approval according to RVS 15.04.51.

### TENSA®RAIL RSU product features



Joint ready for installation



Loop anchors



Joint prior to concreting



Edge detail



Cover plate



Installed joint

### mageba expansion joints



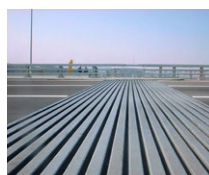
Single gap joint



Cantilever finger joints



Sliding finger joint



Modular expansion joint

### Example cross sections

The cross sections below show examples of joints with studs or loop anchorage. The optional insulation mat is shown as well. The detailed design of each joint is individually fitted to the customer's requirements.

### Quality

For five decades, mageba expansion joints 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 that is certified in accordance with ISO 9001:2008. Quality is also regularly inspected by independent institutes, such as the materials testing body (MPA) of the University of Stuttgart. mageba factories are certified for welding in accordance with ISO 3834-2, and according to the current steel construction standard EN 1090.

### Additional Information

On our website, [mageba-group.com](http://mageba-group.com), you will find further product information, including reference lists and tender documentation.

