

Western Sydney Airport line (Australia)



Project description

The Western Sydney Airport line is a 23 km-long driverless metro railway line that will connect the new Western Sydney International Airport to Sydney's rail network.

The new railway link will primarily connect residential areas with major employment centres, including the new Western Sydney Aerotropolis project. It will also provide connectivity from the new airport to the rest of the public transport system.

The metro is expected to carry up to 7,740 passengers per hour in each direction and is set to reduce traffic by removing approximately 110,000 vehicles from the roads.

The railway line is located in Sydney, the capital city of New South Wales



mageba scope

The rail link required the construction of a 3.5 km-long viaduct, and mageba was commissioned to design and manufacture 348 RESTON®SPHERICAL bearings to support its superstructure.

The bearings were designed to accommodate the various combinations of forces, movements and rotations arising along both sides of the structure and to suit the different anchorage limitations imposed by superstructure and substructure designs. Selected bearings were tested in mageba's NATA-accredited testing facility in Sydney, with test loads of over 10,000 kN applied.

A second major structure, a 190 m-long railway bridge over the new M12 motorway has been also constructed using 70 LASTO®BLOCK elastomeric bearings and four RESTON®FORCE shear keys.

The RESTON®SPHERICAL bearings were designed to carry vertical loads of up to 12,000 kN



Highlights & facts

mageba products:

Type: RESTON®SPHERICAL bearings
LASTO®BLOCK elastomeric bearings
RESTON®FORCE shear keys

Installed: 2023

Structure:

City: Sydney
Country: Australia
Type: Railway bridge
Owner: Sydney Metro
Contractor: CPB Contractors United Infrastructure Joint Venture
Designer: Aurecon Hatch Joint Venture

One of the installed RESTON®SPHERICAL bearings

