

Gotthard South Ramp (Switzerland)



Project description

The Gotthard Pass has been a vital route across the Alps for centuries, connecting Italy and the Roman Empire with much of the rest of Europe.

Its importance is demonstrated by the tunnels that have been constructed through the mountain below the pass to reduce travel times.

A 9-kilometre stretch of the A2 motorway at the south end of the Gotthard Road Tunnel, part of the so-called Gotthard South Ramp was decided to be renovated. The works also included the refurbishment of four viaducts along its length.

mageba scope

The old expansion joints along the route are replaced with TENSA®FINGER RSFD cantilever finger joints where the movements were limited to 450 mm or less, and a TENSA®FINGER GF sliding finger joint at one location where movements of up to 1,000 mm have to be accommodated.

The joints' finger plates have been protected against corrosion by using high-temperature galvanizing.

The choice of these expansion joint solutions was very sensible, considering in particular the high longitudinal slope (up to 5% gradient) of the viaducts, since the large longitudinal forces exerted by accelerating and braking trucks and cars can be efficiently transferred to the main bridge structure by the longitudinally oriented fingers of these joint types.

Highlights & facts

mageba products:

Type: TENSA®FINGER RSFD and TENSA®FINGER GF joints

Installation: 2021

Structure:

City: Airolo

Country: Switzerland

Type: Highway bridges

Owner: ASTRA

Contractor: CSC Webuild Group, Lugano

Engineer: Project Partners Ltd Consulting Engineers, Lugano

The Gotthard Pass is located at 2,106 m high in the Swiss Alps



A TENSA®FINGER GF joint during installation



One of the finger joints before concreting

