



Reference Details

Owner Veneto Strade S.P.A., Mestre Venezia, Italy +++ **General**

Contractor Carron Cav. Angelo S.P.A., San Zenone Degli Ezzelini, Italy +++ **Engineer** Ing Mario D'Agostini, Italy

DSI Unit DYWIT S.P.A., Milan, Italy

DSI Scope Supply of approximately 40t of DYWIDAG THREADBAR®s, Ø36 and 47 mm, St 950/1050WR, including accessories; technical assistance



Seismic Retrofit of the S. Felice Bridge using the DYWIDAG THREADBAR® System

Repair and Strengthening of the S. Felice Bridge, Belluno, Italy

The San Boldo single-lane mountain pass, built in 1918, is located in the province of Belluno near the southern border of the Alps. The 17 km long pass, SP 635, leads over a peak of 706m, with a maximum inclination of 12%, linking the towns of Trichiana and Tóvena. The pipeline route of the southern ramp is well worth seeing because it leads traffic through five helical tunnels blasted into the rock and over six bridges as it winds its way up to the peak of the pass.

The S. Felice Bridge, which was built from 1928 to 1929, is an important structure on the San Baldo mountain pass. The bridge is divided into 8 spans, each consisting of two 35.70m long arches. As the S. Felice Bridge was no longer able to cope with the steadily increasing volume of traffic, extensive repair and strengthening works are underway.

During the construction works, the bridge deck is being widened from 6.20m to 8.20m. Furthermore, a cantilevered steel pedestrian crossing is being added to the bridge.

Seismic stability was another important issue during the strengthening works.

The DYWIDAG THREADBAR® system was chosen for the seismic retrofit of the bridge because of the many advantages it brings to a project due to its quick and easy installation and its superior performance when used as short and intermediate length tendons. For this purpose, the DSI company DYWIT in Italy delivered DYWIDAG Bar Post-Tensioning systems which sustainably strengthen the entire bridge.

DYWIDAG 36 and 47mm diameter St 950/ 1050WR THREADBAR®s were installed in the bridge piers and crossbeams and posttensioned and grouted afterwards. Consequently, the arches themselves did not need further reinforcement.

For this project, DYWIT supplied over 40t of DYWIDAG THREADBAR®s and accessories as well as rented field technical equipment such as bar prestressing jacks.

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