

Project Spotlight

Maspero Elevatori design makes visiting an Italian historical site safer and easier.



The 208-m track has two stops and can be covered in about 2 min.

Elevating History

by Lindsay Fletcher

The ancient Venetian bastione of the Riva del Garda fortress, or “Bastione,” located in the northern Italian province of Trento, sits strategically at the foot of Mount Rocchetta, where it was able to defend the ancient walled town and its lake. Built in 1507, the Bastione was fully restored by the Autonomous Province of Trento between 2007 and 2008, and it is a great example of typical fortified Renaissance architecture.

Until it was dismantled in 1980, a chairlift was used to transport tourists up the hill. Since then, the Bastione could only be reached through a pedestrian path, which took about 30-min travel time up a steep track.

To connect the fortress with the Riva del Garda Center below it, Maspero Elevatori manufactured and installed a fully automatic inclined glass panoramic lift, or inclinor, that



A chair lift was used to access the site until 1980.

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harmonizes with the surrounding scenery while allowing passengers to enjoy the unique landscape of Garda Lake.

The new inclined lift guarantees accessibility in about 2 min of travel, with a panoramic view of the lake that is important for visitors to get the full experience of visiting the castle.

The design phase of the project began in 2016, and construction began three years later with the lift opening and the first ride taking place in July 2020. The lift project was designed by Studio Ingegneri Associati Fontana & Lotti-Lorenzi, and construction was handled by Maspero Elevatori S.p.a. and Impresa Costruzioni Bassosarca.



"Being chosen to carry out this work represented an important recognition of our expertise in creating tailor-made technological and design projects, overcoming even the most difficult infrastructural barriers thanks to a team of professionals of the highest level," said Andrea Maspero, CEO of Maspero Elevatori.

The inclined elevator is made of stratified, transparent laminated glass that was manufactured by Maspero. The lift has variable inclination from 37° to 43°, and the cabin's nominal capacity is 1875 kg, allowing for the transportation of 21 passengers. The 208-m track with an incline of 130 m has two stops and can be covered in about 2 min, thanks to a speed of up to 2 m/s. The yearly traffic flow reaches 150,000 tickets with an average of 400/500 passengers per day.

The lift project required moving the original route to the north, on the ridge of the slopes of the Rocchetta, directly under the Bastione. To minimize impact on the landscape, an attempt was made to adapt the position of the runways to the existing profile, keeping the sliding base of the lift as close to the ground as possible.

The stairways and stone walls of the Maronian era remain for visitors of the valley to access. The station was built through a reorganization of the existing volumes in a single building with an underground typology placed on new grounds respecting the alignment of the original terraces.

A modern building hosts the lower station, which is indoor and underground and endowed with technology that controls the passenger flow. Great attention was paid to the mountain station, given the presence of the fortified complex of the Venetian Bastione that dominates, with its own grandeur, the view over the city of Riva del Garda.



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In order to reach the inclined elevator's departure stations, Maspero Elevatori also manufactured two vertical elevators – located downstream next to the station's hypogeum building, and at the Bastione, upstream of the restaurant. Both the inclined lift and the two vertical lifts are equipped with automatic sanitization systems based on UV technology.

The fortified complex of the Venetian Bastione derives its name from the robust 16th-century military tower with a circular plan in white limestone, but it was actually much more complex than how it appears today, as shown in the "traveled postcard" of 1899.

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Cabin capacity allows for the transportation of 21 passengers.



The laminated glass provides a panoramic view of the lake.



The new inclined lift guarantees accessibility in about 2 min of travel.

Founded in the early 1960s, Maspero Elevatori is wholly controlled by the Maspero family and has five operational offices in Italy, five foreign branches and 11 strategic partnerships around the world. Over the years, Maspero has developed a deep knowledge of public building infrastructure and passenger transportation, which has allowed the company to provide safe and efficient solutions in the Italian and European markets, as well as in the U.S. and Asia. Maspero Elevatori frequently collaborates with world-renowned architects such as Renzo Piano, Norman Foster, Nicholas Grimshaw, Santiago Calatrava, OMA, Richard Meier, Arup and Massimiliano Fuksas.

In the infrastructure segment, Maspero Elevatori designs, manufactures and installs external and internal, vertical and inclined elevators, escalators and moving walks fully compliant with European and international regulations, capable of reliably satisfying the service required in public facilities. The company knows that any infrastructure project involving public transportation requires a high level of attention to the installation's challenges and the public's needs. 🌐