

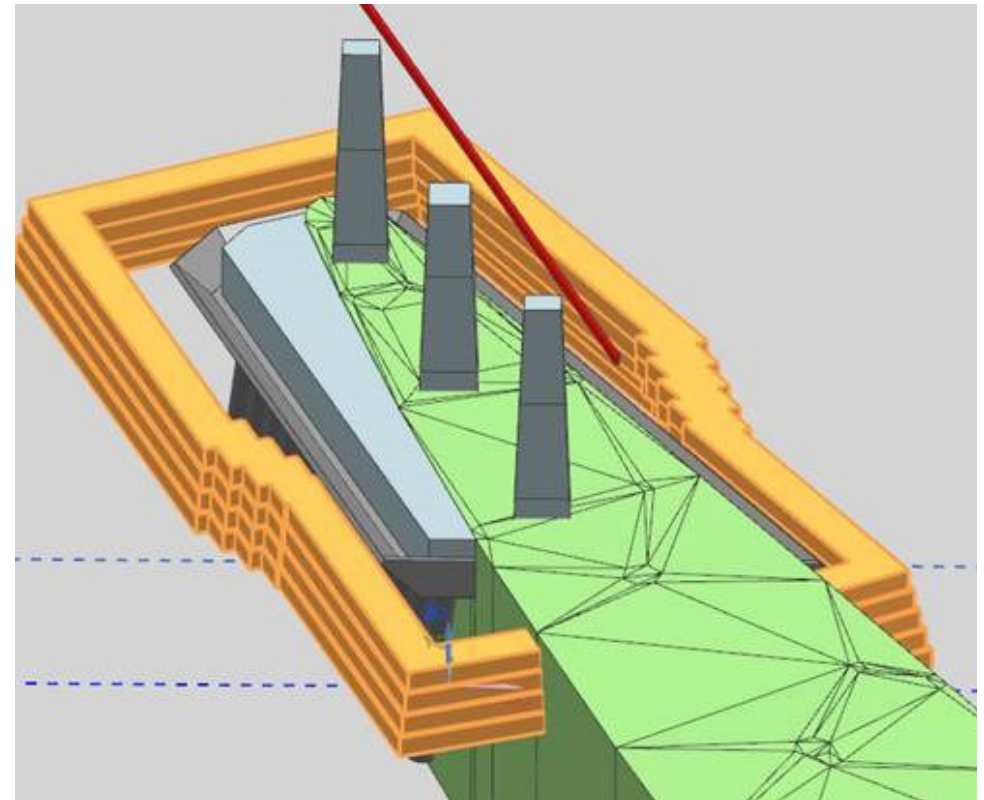


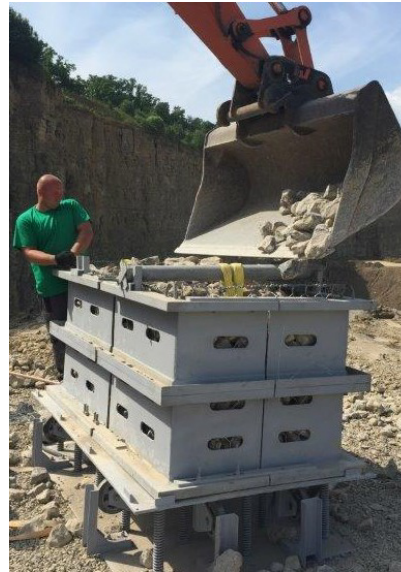
A temporary peninsula allows the setting up of bridge piers midstream for Stuttgart 21

Stuttgart is the sixth largest city in Germany and the capital of the state of Baden-Württemberg. The city was and still is at the center of an ambitious urban development plan: Stuttgart 21. The project is part of the 1,500 km long "Magistrale for Europe" rail link that connects several cities in Europe, among the others also Paris, Munich, Vienna and Bratislava. Stuttgart 21 consists of the complete restructuring of the city's railways, with the construction of approximately 60 km of new tracks. Maccaferri contributed to the enabling works for the construction of the new railway bridge over the River Neckar, flowing through the city of Stuttgart.



The construction of the bridge required that the foundations of the bridge piers were to be built in the middle of the river. Hence, the designers Schlaich Bergermann Partner decided that a temporary artificial peninsula would be most effective, in order to create a load-bearing working platform in the water for the construction equipment. The structure had to withstand an imposed load of 170 kN/m².





Maccaferri proposed the use of CubiMac, prefilled semi-stiff gabions, which – unlike traditional gabions – are prefilled with rocks off-site and subsequently transported to the project, ready for immediate use. Since the major part of the structure was installed under water, a conventional filling in situ would not have been possible. Divers were enlisted to ensure the gabions were placed in the correct position on the river bed.

CubiMac as a permeable structure allows water filtration and has an excellent resistance to high loads. Being a ready-to-use solution, prefilled gabions are perfect to follow the needs of the work-in-progress and when the bridge is completed, the artificial peninsula can be easily removed and the CubiMac gabions can be reused for other project phases. 1,800 m³ of CubiMac prefilled gabions were used for this project.

