

BREŽICE HYDROPLANT
BREŽICE, STYRIA, SLOVENIA

Longitudinal Protection

Problem

The project was about constructing a hydropower plant to produce renewable electricity, including building a dam along the river Sava next to the town of Brežice. The project required a sound and economical solution to protect the basin banks from erosion.

Solution

Maccaferri proposed a solution with 30 cm thick Reno Mattresses®, allowing a significant reduction in the thickness and size of the stones compared to a traditional rip-rap solution. This allowed substantial economic savings, other than a considerable reduction of the environmental impact.

The protection consists of approx. 15.000 m² of Galmac (Zn-Al 5% alloy) and PA6 coated Reno Mattresses®, installed on a bank with a 1:2.2 slope.

Reno Mattresses are double twisted wire mesh units with two larger dimensions (length L and width W) and short thickness, provided with internal diaphragms 1 m spaced. Thanks to the regular geometry, mesh in roll was installed to close the units in this case.

The mattresses were supplied in different lengths (from 3 to 6 m) to fit the geometry of the bank, with a detailed executive design to optimize the quantities and avoid any wastage. The width was 3 m, to maximize the installation rate.

Client: INFRA d.o.o.

Designer / Consultant: IBE, Consulting Engineers

Contractor: Riko d.d.

Products used (Qty.)

- Reno Mattress Plus ~15.000 m²

Date of construction: 06/2016 - 09/2016

[Google Maps](#)

[Google Earth](#)



Brežice Hydropowerplant



During the installation



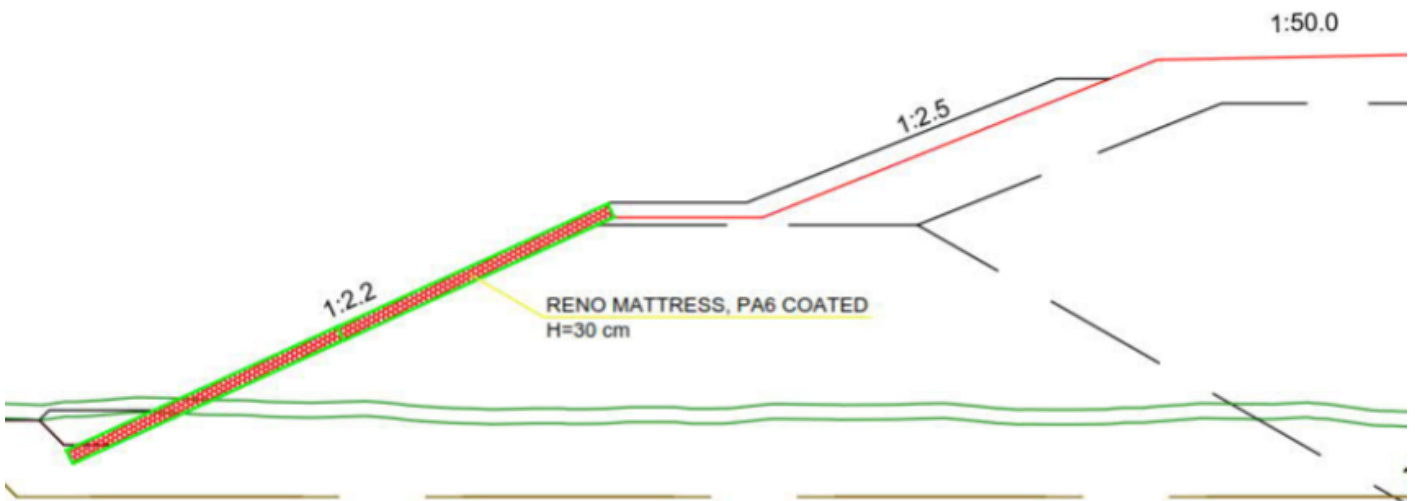
During the installation



During the installation



Works completed



Schematic cross section

MACCAFERRI CENTRAL EUROPE S.R.O.
Kopčianska 3759 851 01 Petržalka
Slovakia
Tel: +421 2/202 400 56
E-mail: info.sk@maccaferri.com