

M.M. S.R.L. Fiberglass Reinforced Polymer Gratings and Structures

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CYCLE-PEDESTRIAN BRIDGE FLOORING IN FRP

CLIENT	THE TECHNICAL DEPARTMENT OF THE "ROADS AND RAILWAYS PROJECTS" OF A PUBLIC INSTITUTION IN NORTHERN ITALY
LOCATION	BOCENAGO, PROVINCE OF TRENTO, ITALY
USE	CYCLE-PEDESTRIAN BRIDGE FLOOR
PRODUCT	DOUBLE COVERED GRATING SCH38/38DC IFR TYPE FLOOR
SERVICE	DESIGN AND CONSULTING



OBJECTIVE

The client needed to replace the 70 m long floor of a cyclepedestrian bridge. The wooden existing floor was ruined and worn out due to the weather conditions exposure.

The steel load-bearing structure did not need to be replaced.

The main problems dealt with were:

- The double covered surface grating needed to support the loads required by the D.M. 14-01-2008 concerning cycle-pedestrian bridges which corresponds to a 5 kN/m² distributed load and a 10 kN concentrated load on an area of 0,1 m x 0,1 m.
- **2.** The double covered surface grating had to reach the suitable antiskid level.
- **3.** The carrying out of the project and the installation needed to be made as fast as possible.

SOLUTIONS

The problems have been taken on as follows:

- **1.** The double covered grating type SCH38/38 DC that has been used for the bridge floor has the resistance and rigidity load support characteristics required by the Italian law.
- **2.** The feature of the double covering allows to have a flat surface both on the top and the bottom part of the grating. The flat bottom enables a fast installation and doesn't require particular finishing of the underneath support beams. On the other hand the flat top allows to have a straight usable walking surface and has a quartz sand finishing that reaches the antiskid required level.
- **3.** The non-see-through surface on the whole length of the bridge gives a total safety feeling even as visual perception.
- **4.** The double covered gratings in the form of standard panels are directly installed on the steel structure made of four beams that run longitudinally along the bridge. The dimensions of the grating panels perfectly fit the width of the bridge floor. The installation was quick and the complete replacement was made in short time.
- 5. The whole installation was made in 3 working days.