

M.M. S.R.L. a socio unico Fiberglass Reinforced Polymer Gratings and Structures

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## **REMOVABLE PARAPET FOR A TRAM DEPOT IN LIEGE**

CLIENT	DUCHENE S.A.
LOCATION	LIEGI, BELGIO
USE	350 LINEAR METERS OF PARAPET IN REMOVABLE MODULES AS PROTECTION OF MAINTENANCE LINES FOR TRAM VEHICLES
PRODUCT	FRP PREFABRICATED PARAPET; CUSTOMIZED BASE PLATES FOR FASTENING
SERVICE	PARAPET DESIGN, CUSTOMIZED STEEL FASTENING ELEMENTS DESIGN, ASSEMBLY AND SUPPLY



## **OBJECTIVE**

The project for the Liège tram depot included the realization of a **broad gangway system serving the three maintenance lines for the railway carriages.** Such system required the installation of a removable parapet system on one side, in order to allow the workers to do the necessary operations on the vehicles. Originally, the plan included a modular steel parapet solution, that should have been assembled in order to be installed in dedicated circular recesses at the walking surface level.

## SOLUTIONS

The M.M. Technical Team developed a **parapet system fully compatible with the project's specifications and restraints.** The choice of the FRP solution allowed to significantly reduce the weight of the modules, thus resulting in an easier handling while ensuring a proper protection from falling in the workspace.

The project has been realized as a completion of the gangways' steel structure. For this reason, it hasn't been possible to modify the circular shaped accommodation holes in order to install the standard square-shaped FRP posts. To solve this problem, **M.M. developed a special galvanized steel adaptor,** designed and built to realize an optimal fitting with the existing holes and ensuring an effective connection between the sections. The parapet modules have been supplied preassembled; the packing has been optimized in order to reduce transport costs and ease the installation process.