

PLATFORM ROOF FOR THE PROTECTION OF BLOWERS AND SWITCHBOARDS IN A WASTEWATER PLANT.

CLIENT	REGIONAL PROVIDER OF WATER SERVICES IN VICENZA
LOCATION	MONTEBELLO VICENTINO (VI) - ITALIA
APPLICATION	WASTEWATER PLANT AT MONTEBELLO VICENTINO - ITALY
USE	PLATFORM ROOF WITH FRP WEIGHT-BEARING STRUCTURE AND FRP CORRUGATED SHEETS
PRODUCT	PULTRUDED PROFILES, FRP LAMINATED SHEETS, FRP CORRUGATED SHEETS



OBJECTIVES

- Develop a project for a protection structure aimed to secure the blowers and the switchboards from rainfall
- Provide a comfortable access to electromechanical equipment for their maintenance and replacement
- Design consistent with the constrained height and the existing concrete works.
- Customize the columns according to the dimensions of the existing concrete platform foundation

THE SOLUTION

The structure of the shelter has been designed by M.M. on the basis of the input defined by the client; M.M. also coordinated the site survey and developed the assembly sequence as a helping hand for installation. The structure is entirely composed by FRP elements such as pultruded structural profiles, corrugated sheets as roofing and laminated sheets as vertical cladding.

The design of the structure has been optimized, in order to limit the number of joints and at the same time increase the adaptability of the system which has allowed to adjust the position of the columns on site, and to allow proper access for maintenance and replacement of the machinery.

In order to build the rainwater drainage slope, M.M. developed innovative custom-made FRP trapezoidal sleepers provided with a proper junction system.

The roofing is made of FRP corrugated sheets connected to the purlins. All pieces have been delivered on site already cut to size and predrilled for an easier installation.

This project has been carried out as a follow-up of a refurbishment, completed in 2017, of a similar building: in that case, the existing structure had been equipped with vertical protective elements made of FRP laminated sheets supported by a new FRP structure.