M.M. S.R.L.
Fiberglass Reinforced Polymer
gratings and structures

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ELECTRIC SUBSTATION - TRANSFORMER PIT COVERS

LOCATION

Power station with a 137kV capacity. It has been recently been built in order to guarantee power storage and an improved service on the electric lines of the area.

CLIENT

Large national producer and service provider for the conveyance of high voltage energy.

LOCATION	VICENZA (ITALY)
USE	BASES FOR POWER TRANSFORMERS.
PRODUCT	GRATING TYPE SCH 30/28_ IFR

OBJECTIVE

The Buyer did not want to use metal gratings for the covering of the oil collecting manholes. A different innovating solution had to be found for a greater workers' security because the metal gratings where in close contact with high tension and consequently risky for them. Another problem were the oil spills as the effect of the transformers downloading that made the surfaces turn out slippery.

SOLUTION

The coverings of the transformer pits have been made with rectangular molded gratings type SCH 30/28_IFR. These gratings have been produced with polyester fire retardant resin and their dielectric properties have offered an advantageous alternative to the steel applications in power substations.The test regarding the dielectric strength with rated voltage according to the ASTM D 149-97a norm, has ascertained a 300µ A electricity absorbtion complying with the safety norms and assuring a high electric risk protection. No grounding is needed. The particular concave meniscus shape of the surface guarantees its high non-slipping level R13 V10 of the DIN 51130 norm even if wet or oily. The final result has been appreciated by the Buyer that has used the same product in several other substations.