

# ELECTRIC SUBSTATION - CHANNEL COVERS

## LOCATION

This power station is one of the largest ones in the area and works up on 110,000 m<sup>2</sup>. It is a small part of the wide program of new very high voltage plants that obtain power from renewable sources.

## CLIENT

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

<b>LOCATION</b>	<b>FOGGIA (ITALY)</b>
<b>USE</b>	<b>CHANNEL COVERS AND MANHOLES</b>
<b>PRODUCT</b>	<b>COVERED GRATINGS SCH 38/38C_ IFR AND SELF-FIXING ANGULAR PROFILE</b>



## OBJECTIVE

The presence of high and medium voltage cables and the possible wet slippery surfaces were a potential safety problem with the steel and cast iron coverings. To allow the access to these spaces for servicing and inspections, lifting devices were required because of their heavy weight. The concrete coverings used in substitution had the same heavy weight problem for access in addition to their cracking in the long period. What the buyer required was a long lasting, light weight, non slippery product to be used for channel covers and manholes and possibly dielectric for a more safe environment for workers.

## SOLUTION

M.M. has successfully installed its covered gratings in polyester resin, SCH 38/38C\_IFR type, fulfilling all Buyer's requirements. This product has then been used in other sub-stations. Even if these coverings only weigh 25 kg/m<sup>2</sup>, their structure allows them to be accessible to vehicles. They are easy to remove and the access to the spaces is safe and simple. No lifting devices are required. The quartz sand surface treatment of these covers guarantee a high non-slippery level even when wet, DIN 51130 norm R13 V4 level. The covered M.M. gratings have been classified as excellent insulators according to the EN 61340-2.3 and IEC 61340-4-5 of the electric field norms. The manhole and channel cover frames are made with self-fixing M.M. angular profiles. Their particular shape allows a considerable optimization of the concrete volumes, thanks to a reduce length of the anchoring parts.