

PIPELINE PROTECTION
MESSINA II PROJECT, GIOIA TAURO, ITALY

PIPELINE PROTECTION

Product: Articulated Concrete Block Mattresses (ACBM) and Lifting Frame

Problem

Prysmian on behalf of **Terna Spa** (Rete Elettrica Nazionale) the Italian electric company, were awarded the project to install the new submarine high-tension connection cable between Sicily and Italy. This project is of paramount importance to the future vision of the whole Italian electricity network. The overall project has a total value of approx €300M, including engineering, supply, installation and protection of two 380kV AC cable circuits. The new pipeline will connect two power stations located at Villafranca Tirrena, Sicily and at Scilla, Calabria. The total transmission capacity of the new connection will be 2000 MW and will increase the existing 380 kV AC line 1,000 MW installed in 1984 by Pirelli Cavi Company, now Prysmian Powerlink.

The projects included the installation of approx 38 km of electricity cables (380 kV AC) under-sea and 5.4 km on land with 2 km in Sicily and 3.4 km in Calabria.

Prysmian Powerlink installed submarine cables with its vessel the Giulio Verne. The whole project consists of 260 km of cables to be installed during several operations.

Solution

The project presented different situations which required the installation of Articulated Concrete Block Mattresses.;

- Cable protection from falling objects;
- Cable crossing over existing pipelines;
- Cable stabilization requiring installation beneath the cable

Maccaferri supplied:

1. 520N ACBM 5 x 2 x 0.20m
2. 2 No. ROV friendly automatic frames, suitable for installation in deep water of ACBM mattresses
3. 1 No. manual frame suitable for onshore handling operations

The ACBM had to be delivered at Gioia Tauro port and Maccaferri sited its manufacturing point as close as possible to Messina to minimise transport costs.



ACBM mattresses casting operations



ACBM mattresses in stock



Installed ACBM mattresses

Client:

TEMA S.P.A.

Main contractor:

PRYSMIAN POWERLINES

Products used:

ACBM MATTRESSES

Date of construction

SUMMER 2011

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