

### PIPELINE PROTECTION

#### MESSINA II PROJECT, GIOIA TAURO, ITALY

### PIPELINE PROTECTION

#### Product: Articulated Concrete Block Mattresses (ACBM) & Lifting Frame

##### Problem

Prysmian on behalf of **Terna Spa** (Rete Elettrica Nazionale) the Italian electric company, will realize the new submarine high tension connection cable between Sicily and Italy. This project is of paramount importance in a future vision for the development of the whole Italian electric system. The whole project has a total value of approx 300 Millions of Euro, including engineering, supply, installation and protection of two cable circuits at 380 kV. The new pipeline will connect two Power Stations located at Villafranca Tirrena in Sicily and at Scilla in Calabria. Total transmission capacity of the new connection will be 2000 MW and will increase existing line at 380 kV in alternating current of 1.000 MW installed in 1984 by Pirelli Cavi Company, now Prysmian Powerlinks. The project includes the installation of approx 38 km of electric cables 380 kV AC under sea and 5,4 km on the land with 2 km in Sicily and 3,4 km in Calabria Regions. Prysmian Powerlinks will install submarine cables with its vessel *Giulio Verne*, properly designed for this kind of operations. The whole project consists of approx 260 km of cables to be installed through several lots.

##### Solution

The project presented different situations which required the installation of ACBM, e.g.:

- Cable protection from falling objects;
- Cable crossing over existing pipelines;
- Cable stabilization with installation underneath the cable.

OFFICINE MACCAFERRI supplied:

- 520 ACBM dimensions 5x2x0.20 m
- n°2 ROV friendly automatic frames, suitable for installation in deep water of ACBM mattresses
- n°1 manual frame suitable for on shore handling operations

Project location has been Messina strict and ACBM Mattresses had to be delivered at Gioia Tauro port. Officine Maccaferri noticed this delivery point and placed its jobsite in Cosenza Area approx 300 km far from it to save transport cost.

Client:

CLARK COUNTY, NV

Main contractor:

JERRY NOVE CONSTRUCTION

Designer:

K.J.E. CONSULTING ENGINEERS, LAS VEGAS, NV

Products used:

2,100 M3 TERRAMESH, GABION MATS

Date of construction

SPRING 2000



ACBM mattresses casting operations



ACBM mattresses in Stock



Installed ACBM Mattresses

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