HOBAS® Makes Assurance Double Sure Double Pipe Server System for the Marche Region in Italy

Year of Construction 2009 Total Length of Pipe 1.4 km Pressure Class **PN 1** Stiffness Class SN 10000 Diameter DN 400 + 500 Installation Method **Open trench** Application Double Pipe, SeweLine®, ShaftLine[®] Client Marche Multiservizi Contractor **Caruso Rocco Impresa** Edile (Pisticci/MT) **Construction Company** Simona Francolini -Marche Multiservizi Advantages double assurance for pipelines and joints, leak-tight couplings, low weight, simple and fast installtion, tailor-made solutions

Marche Multiservizi is the most important multi-utility company for water management in the central Italian Marche region. 56 municipalities of the Pesaro-Urbino province make use of its services ranging from potable water supply to waste water treatment.

Recently the company realized its plan to connect the sewer network of a new urban settlement in Torraccia, in the western neighborhood of Pesaro, to the treatment plant of Borgheria. The sewer had to cross a water protection area with several water wells.

In order to protect the environment from being contaminated in cases of pipeline failure, environmental specifications require double security measures. The design engineers therefore opted for coaxial pipes: any leakage eventually coming out of the inner pipeline, would be retained by the outer pipe.

After a thorough comparison of today's large variety of available pipe material, Marche Multiservizi decided to utilize HOBAS® Products. The HOBAS Double Pipe, or as the Italians would say "Doppiotubo", is a pipe in pipe system made of CC-GRP Pipes. A wide range of HOBAS Accessories and Special Fittings complete the double safety system.

1.4 km of double pipe have been utilized for the Torraccia project, with inner and outer pipe diameters DN 400 and DN 500 respectively and a pipe stiffness of SN 10000. The inner pipes are kept in place with spacer rings. Special HOBAS Couplings with 4-lip rubber gaskets ensure complete leak tightness in both ways, namely from in- and outside the pipeline. The installation proceeded extremely fast and with ease thanks to the preassembled double pipes, and the relatively light weight of the pipe material.

Since the sewage system also includes manholes with inlets from nearby buildings the design engineers had to make sure that these are just as reliable as the rest of the line. HOBAS® Double Pipe Products were therefore favored also in this case: 22 special manholes featuring tight connections to both the inner and outer pipes as well as the PVC intakes from buildings, and special leak detectors were installed along the pipeline.

> The extraordinary flexibility of HOBAS® CC-GRP Pipe Systems allowed customizing each single manhole and component to suit all requirements set by the Marche Multiservizi project. With a height ranging from 2.4 to 4.7 m and a shaft diameter of 1600 mm each manhole is equipped with a rust-proof ladder, a concrete plate to top the shaft, a 45° PVC intake, and a lipped base to avoid buoyancy.

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