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PipeLine

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Rome Makes Assurance Triple Sure! **HOBAS®** CC-GRP Double Pipes for the City of Sports in Rome, IT

Major works are under way in the district Tor Vergata where Rome's so called Second University is based. With the establishment of the City of Sport (Città dello Sport) a substantial aim of the project is to improve the area - not least with an impressive design by the architect Santiago Calatrava.

Inspired by the ancient Roman Circus Maximus, the plans of the famous Spanish architect include a long avenue with two rows of cypresses on either side. The City of Sports lying on one and the University Rectorate on the opposite end of the road, that is in fact twice as long as its ancient paradigm, shall characterize the new sports facilities.

With an investment of approximately 600 million Euros the City of Sports consists of two identical "shells" made of concrete, steel and other metals. They accommodate the "Palasport" for e.g. ball games such as basket and volley ball for up to 15,000 spectators as well as the "Palanuoto" with swimming pools and an area for 4,000 people.¹

Since the exterior beauty of these facilities would be worthless without a sane interior such as functioning piping systems, a lot of thought was also given to this issue. Stormwater from the sports facilities is collected in a water main DN 2700 that has been installed by microtunneling. This pipeline, however, serves as host pipe for other service lines as well. It for instance holds a sewer pipe that runs on steel saddles which are fixed to traverses perpendicularly mounted to the tunnel every 3 m. A steel grid as walkway for easy inspection and maintenance of the tunnel is placed above these traverses.

Regarding the sewer pipe's reliability, the awarding authority, the Municipality of Rome, decided to make assurance double sure and opted for HOBAS GRP instead of the initially proposed pipe material. Although HOBAS Pipes





have a service life up to 100 years and provide independently testified leak-tightness, the Municipality of Rome wished to triple assurance: The 760 m long sewer pipe DN 600 and DN 800 was therefore realized with a HOBAS CC-GRP Double Pipe System. This consists of two pre-assembled coaxial pipes which are kept in position with spacers. Their purpose is to allow keeping an eye on possible leakage and to collect the water from the inner line in the (almost impossible) case of such. HOBAS Double Pipe Tees serve for inspection and optional cleaning of the inner pipe and planimetric curves. These were utilized instead of double pipe manholes due to the limited space in the multipurpose water pipe.

Since the pipeline was installed on saddles and once again because of the lack of space, two winches were used to assemble the pipes by pulling them together via their couplings pre-mounted on one end. The easy installation thanks to the push-to-fit HOBAS FWC Symmetric Couplings and the relatively light weight of the material resulted in an average installation rate of 36 m of pipe per day and included mounting the necessary girders, saddles and steel grids.

Construction works for the City of Sports are expected to be completed in 2013. Although invisible to the public, HOBAS will then belong to one of Rome's numerous beautiful sites that will be frequented by students, sportsmen and tourists.

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Year of construction
2010

Total length of pipeline
760 m

Diameter
**DN 600/700 and
DN 800/900**

Pressure class
PN 1

Stiffness class
SN 5000 – 10000

Installation method
**Installation in a tunnel,
on supports**

Application
Double Pipe SewerLine®
Designer

SRdigital s.r.l. - Roma
Awarding authority

Municipality Rom
Client and Contractor

T.V.S.c.a.r.l. – Fano (PU)
Advantages
Triple safety with possibility to monitor the system's tightness; easy installation; complete double pipe assortment; light weight