HOBAS® for a Blue Danube

In Hungary's capital Budapest 600,000 m³ of water run into the Danube daily, 51% of which are completely untreated. This does not only endanger the area's wildlife but also conflicts with the objectives of the Sofia Convention in 1993 to protect and sustainably use the Danube.

Already in 1974, a program with the working title „Sewage Treatment and Disposal for the capital Budapest" was set up envisaging the establishment of 4 waste water treatment plants in Budapest. The first is the Budapest Central Sewage Treatment Plant (BKSZTT) that was planned to be built on the Danube's island Csepel.

The project is financed by the EU from the design to construction and a first feasibility study was made by a consortium lead by the Swedish engineering company SWECO in 2002. Latest technologies will increase the effiency of biological treatment by three times and enable 92 % of waste water to be treated biologically. With a planned maximal capacity of 900,000 m³ per day, it is the largest sewage treatment plant in Hungary and the 2nd largest in Europe. It will easily cope with the current 350,000 m³ sewage coming from the area's main. This covers approximately half of Budapest's storm and waste water originating from households and industry.

Year of Construction
2008
Length of Pipe
2 km
Pressure Class
PN 1, PN 6
Stiffness Class
SN 5000
Diameter
DN 1200, 1400, 1800
Installation Method
above ground on suspensions, open cut
Application
SewerLine®
Client
Central Waste Water Treatment
Constructor
Plant Csepel
Csepel 2005 FH Consortium (OTV France, Hídépito Zrt, Alterra Kft., lead by Degremont S.A.)
Advantages
light weight, corrosion resistance, chemical resistance, resistance against aggressive substances, simple installation and handling

Located on a floor space of 29 ha in the north of Csepel, the sewage treatment plant lies between km 1641 and 1642 of the Danube. A bypass with short pipes and a loose collar joint was installed in the plant building for an inductive flow meter. HOBAS CC-GRP Pipes were selected for this thanks to their relatively light weight, distinguished chemical resistance, and excellent hydraulic characteristics. The line consisting of three standard length (6 m), one 4.5 m and one 1.5 m long HOBAS CC-GRP pipes was fixed on suspensions. A connection pipe with a mechanical coupling was inserted prior to the flow meter.

HOBAS CC-GRP Pipe Systems are absolutely leak tight, long lasting, have excellent hydraulic and long-term static properties. Their handling and installation is remarkably easy due to their leight weight, simple push to fit couplings and compatibility with other materials.

These advantages and numerous industrial projects successfully realized with HOBAS in the past, convinced the client to utilize HOBAS CC-GRP pipe systems for further parts of the treatment plant: A twin line DN 1200, SN 5000, PN 6 leads to the plant from the west and another two paralleling pipelines DN 1400, SN 5000, PN 6 come from the east adding up to a total length of around 2 km.

Budapest Central Sewage Treatment Plant is the biggest environmental investment in Europe. No efforts and costs were spared concerning architecture and landscaping, so that the plant, which will be comissioned in 2009, harmonously blends in with its surroundings.

An interesting side note: Over 500 artefacts and graves from the Bronze, Iron and Árpád Age have been discovered during construction works. These findings show that the island Csepel was already inhabited 5000 years ago. HOBAS with its reliable products once more contributed in mainting a habitat for man and wildlife.

Fmd: hobas.hungaria@hobas.com