HOBAS in theTyrol: Restricted Space

The Tyrol is famous for its scenery, but craggy peaks and steep pine-clad valleys leave little room for building long sewers. The Sellrain Valley in Upper Tyrol was therefore a clear case for HOBAS CC-GRP Pipe Systems.

Building the last remaining interceptor in the Sellrain Valley for the Zirl Sewage Association took more than two years. 50 kilometers sewer system serving the ultramodern sewage treatment plant on the River Inn in the Zirl district begun in 1991 and were finished in 1996. "Now the sewage from 14 districts and a total of 24,000 inhabitants can flow to the Inn Valley for treatment," explains Georg Lotter, spokesman for the association. The new interceptor links the three villages of Sellrain, Gries and St Sigmund to the district sewer system. Only CC-GRP Pipe Systems made by HOBAS were used in the project.

Narrow trench with long pipes

From Gries via Sellrain to the power station in the district of Kematen, the sewer had to be laid along the main road for 7 km. Rudof Häusler, manager of the sewage association describes the construction work: "it posed considerable problems for traffic as there was simply no room to maneuver in the valley and every free space had to be used. A narrow trench was the only solution. The fact that HOBAS CC-GRP Pipe Systems are six meters long was a great asset, enabling us to make faster headway in the straight sections." Rocky soil and frequently rising

groundwater where the excavators had to work through two to four meters did however prove troublesome. Blasting had to be carried out frequently and time and again huge boulders slowed down progress. Due to the geological conditions, some of the native soil had to be removed and sorted near the site before backfilling.

As Mr Häusler attested, selecting HOBAS CC-GRP Pipe Systems proved to be a good move in this difficult situation because they are light and therefore easy to handle. The low weight was also an advantage when it came to the existing bridges, as the pre-insulated double pipes had to be attached to the bridge framework.

Fewer manholes due to angular deflection

Another advantage of HOBAS CC-GRP Pipe Systems is that they save manholes and therefore money. This is possible because fiberglass-reinforced polyester pipes can also be angled between manholes. The pipes are bent within the joints and reduced radii can be achieved by shortening the length. Shortening on site is no problem because HOBAS CC-GRP Pipe Systems can be cut to length anywhere without requiring finishing work. By mounting a coupling, the remaining piece can also be used, thus avoiding waste. There is no danger of deposits forming in the angled sections as the inner surface of HOBAS CC-GRP Pipe Systems is extremely smooth, preventing sediment and ensuring adequate flow, even in the area of bends. In many sections of the sewer, angular deflection meant that manholes were only required every 50 meters instead of every ten.

Mission accomplished at the end of 1998

Work on the interceptor was finally completed at the end of 1998. The last phase, the section from Gries to Praxmar, was also finished. All in all, the projects in recent years have shown that Tyrol's unique landscape may be spectacular, but it makes work there particularly arduous. One good reason to opt for HOBAS CC-GRP Pipe System.

Year of Construction	1998
Duration of Construction	2 years
Length of Pipes Laid	interceptor: 22 km, total length with sewer mains 37.3 km
Pressure Class	PN 1
Diameter	interceptor: DN 200/250/300, sewer mains: DN 200-500
Stiffness Class	SN 10000
Method of Installation	open cut, pipes unloaded from the bridge by crane truck
Application	Sellrain interceptor and sewer mains partly in rural areas
Client	Zirl Sewage Association
Contractor	Züblin Company

Features

- Very little room for laying, right next to trunk road
- Rocky ground requiring blasting with groundwater frequently causing problems
- HOBAS CC-GRP Pipe Systems light and easy to handle under difficult conditions, especially at bridges
- Reduced number of manholes as bends can be inserted in HOBAS CC-GRP Pipe Systems in between
- No waste when 6 m pipes are shortened, both parts can be used
- Extreme smoothness
- No depositing in the bends
- Temperature resistance