Make things happen. HOBAS®

The Krakow DTW Is Built to Last

Torun is one of the oldest and most historically interesting towns in Poland. The necessity to provide a new sewage system in a city with 200,000 inhabitants whilst also preserving the old buildings was one of the challenges faced by the municipality.

The project involved renewing the sewerage system interceptors and connecting them to the treatment plant by a route which however crossed the botanical gardens, one of the most environmentally sensitive areas in the city.

Microtunneling

To avoid damage to the park, the municipality decided to use the microtunneling installation method with HOBAS® centrifugally cast jacking pipes for that section. This technology had never been used in Poland before. Apart from the benefits of minimizing disturbance along the route of the pipeline, under the tram lines and through the sensitive park areas, the trenchless method also met the other project target of reducing traffic disruption.

The pipes were laid during April/May 1998, and four sections of tunnel 90 m, 215 m, 320 m and 335 m in length were constructed. Pipes of outside diameter 1,720 mm and wall thickness 50 and 60 mm were used and installed with maximum permissible jacking loads of 390 and 523 tonnes. Consisting mainly of sand and gravel, the native soil also contained some large boulders and rocks. The pipe was installed at a depth of roughly 9 m with the ground water level around 0.5 m above the pipe.

Loads up to 500 tonnes

During installation of the HOBAS® CC-GRP Pipe System, the average jacking force was about 300 tonnes with the maximum remaining under 500 tonnes. Remarkable precision was achieved during the microtunneling operation where deviations of less than 25 mm in both the horizontal and vertical axes were achieved.

The sewer construction in the City of Torun is another success story to go down in the HOBAS® annals. Again it has been shown that the sophisticated centrifugal casting technology of HOBAS® CC-GRP Pipe Systems together with advanced precision installation methods can solve complex sewer rehabilitation problems.

Overview	
Year of Construction	1998
Total Length of Pipe	960 m
Pressure Class	PN 1
Stiffness Class	SN 32000 and 40000
Diameter	DN 1600
Installation	Microtunneling
Application	interceptor sewer
Client	City of Torun
Contractor	BETA Warsaw
Advantages	Preserve old buildings and environmentally sensitive botanical gardens; Minimize disruption to pipeline, tram lines and traffic, Precision in microtunneling; Minimum jacking loads

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