Make Way for the Train with HOBAS®

HOBAS® GRP Jacking Pipes Under Railway Track in Třinec, CZ

Pipelines crossing traffic routes, streams or buildings pose a big challenge to contractors. Detours and the therefore required pipeline extension would in many cases increase costs considerably so that they could sometimes not be implemented. A common solution for this problem is therefore trenchless installation with HOBAS Pipes - such as was the case in Třinec, Czech Republic, where HOBAS Pipes were jacked beneath a railway track.

The construction of the 330 m long sewer line started in November 2010, when winter set in with heavy snow falls and freezing cold temperatures. These unfriendly conditions represented, however, no obstacle for HOBAS Pipes which can be installed regardless of cold or hot temperatures. Jacking was conducted without difficulties in frostfree depth.

Several tracks intersect at the rail junction in Třinec. The soil is very stony in this area. In order to protect the GRP pipes from being damaged by the hard soil conditions, the contractor opted for a three-step jacking process: After the pilot drill, protective steel casings were pushed through the soil before the GRP pipes were installed. Since it was assumed the steel would gradually corrode due to stray currents from the railway tracks, the HOBAS Pipes DN 400 were designed to provide full, autonomous structural stability. GRP Pipes, on the contrary, are non-conductive and therefore insensitive to magnetic fields. In the end, the remaining annulus was filled with a cement/fly-ash mixture.



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Year of construction

2010-2011

Total length of pipe

330 m

Diameter

DN 400 (D_e 427)

Pressure class

PN 1

Stiffness class

SN 100000

Installation

Jacking

Application

Sewer

Client

Glasspol Kroměříž

Contractor

Michlovský

protlaky a.s. Zlín

Advantages

Temperature and corrosion resistance, longterm structural stability,

leak-tight