

HOBAS® Jacking Pipes for Protection of Gas Pipeline – Safe Installation Despite High Water Table in Słupsk, PL

465 meters HOBAS Pipes have been successfully jacked as casing for a gas pipeline running beneath a large ring road in northern Poland. The high groundwater level combined with the great installation depth represented a challenge – but was no problem for HOBAS.

Year of construction

2012 – 2013

Construction time

4 months

Diameter

D_e 1099

Pressure class

PN 1

Stiffness class

SN 64000 – 320000

Application

Protective pipes for gas pipeline

Installation method

Jacking

Client

GAZ-SYSTEM S.A.

Contractor

PPI Chrobok S.A.

Advantages

Leak tightness, light weight, quick and easy connection

Along with the building of an import terminal for liquefied natural gas (LNG) in the city of Świnoujście came the need to extend the gas distribution network. One of the network's new pipelines, 700 mm in diameter and 265 km long, was designed to run alongside Poland's northern border, connecting the towns Szczecin and Gdańsk. The construction of this gas pipeline began in 2012 and it is scheduled to be completed in 2014.

Polish regulations state that gas pipelines running beneath e.g. roads, rail tracks and rivers need to be encased in protective pipe. This regulation took effect for one section of the pipe track crossing beneath the large ring road of the town Słupsk and some adjacent roads. With a proven track record of success in the fields of jacking and protective pipes for gas lines, the investor again opted for CC-GRP HOBAS Jacking Pipes. After comprehensive technical advice regarding the optimal pipe design, HOBAS provided protection pipes D_e 1099, SN 64000-320000 in 3-meter-long sections and with a total length of 465 m.

The installation was divided into three sections. The first one with a length of 103 m crossed the S6 highway. The second 122 m long part intersected with a grassed area and a ditch at the ring road, a location where the General Directorate of Domestic Roads and Motorways prohibited trench works. The third section crossed a road junction of the country road No. 210 Słupsk – Globino and the S6 highway, and is 234 m long. The pipes had to be jacked in 9.7 to 13 meters depth, which was not so easy considering the high groundwater level. The jacking pits were designed in dimensions of 4 x 12 m (starting pit) and 4 x 4 m (receiving pit) and located in some distance to the roads.

After jacking had been successfully completed, the gas pipeline was inserted into the protective pipes on polyamide skids and the annular space between the pipes grouted. Leszek Cielecki from PPI Chrobok S.A., the microtunneling contractor, confirmed that the installation had been trouble-free: "Even in the longest jacking section of 234 m, the receiving pit was reached smoothly and precisely. Thanks to the tightness of HOBAS Pipes, the high groundwater level did not pose a problem to installation works. The pipes' light weight also considerably facilitated transport to the construction site."

After the completion of quite a few successful projects including Słupsk, and with the official approval by the Oil and Gas Institute in Cracow for protective GRP pipes for gas pipelines at hand, HOBAS is looking forward to further challenging projects.

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