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References

# Collectors for sewage treatment plant



#### **Uponor involvement**

→ PE delivery pipelines: WehoPipe DN1000 mm PN6 - 10578 m (2 x 5289 m) PE delivery discharge pipeline: WehoPipe DN1400 mm PN6 - 9063 m (5340 m and 3723 m)

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Nineteen kilometres of polyethylene pipes with diameters of 1000 mm and 1400 mm connected the southern area of Warsaw with "Południe" sewage treatment plant and the Vistula. A part of this complex investment was conducted using an open excavation method, and the entire route under Czerniakowska Street and the passage under Augustówka Street was done with microtunneling.

#### **Project Facts:**

Location Completion

Warsaw, Poland 2005

Building Type Product systems

Municipal Sewer Municipal

Project Type New building

#### **Partners**

#### General contractor:

Hydrobudowa 6 - Task 1 Hydrobudowa 9 - Task 2

Sewage from several districts of the southern part of the left bank Warsaw is discharged to the new sewage treatment plant. To allow for the Warszawa Południe sewage treatment plant to perform its function it was necessary to build a system of feed and discharge pipelines. It required building the main sewage pipelines connecting the sewage treatment plant to the Warsaw sewage system and use sewers to discharge the treated sewage to the Vistula.

The construction of supply and intake sewers was divided into two simultaneous tasks. The first one covered construction of three parallel pipelines between Wolicka pumping station and Warszawa Południe sewage treatment plant. The route of the pipelines (3 x 5 340 metres) mainly crossed green areas and wasteland, that is why the majority of works involved open excavation.

The other task - 3712 m long pipeline, runs under Czerniakowska Street. The entire part was completed by microtunneling. The acquired method did not entail banning vehicle traffic on the whole Czerniakowska Street during the works. The polyethylene pipes were installed in reinforced concrete pipes laid under microtunelling method.

Uponor Infra provided pipes with the total length of 19,641 m. The pipes are made of polyethylene and have very good functional characteristics. They are failure-free, resistant to corrosion and abrasion. PE pipes are joined by welding subsequent sections. It provides a great advantage since such technique of joining ensures not only complete tightness but also excellent durability of the entire pipeline, including the joints. It is worth emphasising that using polyethylene pipes helped avoid a number of costly bends and fittings, due to the possibility of the pipeline shaping in the trench.

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