References

Comprehensive modernization of wastewater treatment plant



Uponor involvement

- Weholite gravity pipes PE SN8 DN700-2000 and many unusual fittings
- Technical support at the design and assembly stage, making pipe connections

PE gravity and pressure pipelines

The modernisation of the wastewater treatment plant is a key task of the project "Comprehensive modernization of wastewater treatment plant in Opole along with improvement of water and wastewater management".
The modernisation of the wastewater treatment plant is a key task of the project "Comprehensive modernization of wastewater treatment plant in Opole along with improvement of water and wastewater management". This project is the largest investment in the history of the city of Opole, co-financed by the Operational Programme Infrastructure and Environment 2014-2020. The applied gravity and pressure pipelines PEHD Uponor Infra met the high requirements in terms of chemical resistance and reliability set by the investor.

Project Facts:

Location	Completion
Opole, Poland	2021
Building Type	Product systems
Municipal	Sewer Municipal, Tailor made constructions

Partners

Investor:
Wodociągi i Kanalizacja w Opolu Sp.
z o.o.

General contractor:
WTE Wassertechnik (Polska) Sp. z
o.o.

Combining new PE systems with those that have been in operation for 20 years

Implementation of the investment started in 2019 and included 82 facilities of wastewater treatment plant, intended for construction, reconstruction or modernization. Thanks to the modernization of the treatment plant, its efficiency and energy efficiency will be increased, including by increasing the production of biogas, which will be used to produce electricity for the plant. In addition, thanks to the encapsulation of objects, the treatment plant will become less odorous. Uponor Infra supplied Weholite PE SN8 DN700-2000 gravity pipes, pressure pipes and a number of unusual fittings for the project.

The piping systems supplied for the new investment complemented the existing PE system, which has been working without failure for over 20 years, because in 1999 Uponor Infra (then operating under the name KWH Pipe) participated in the expansion of the treatment plant in Opole as a comprehensive supplier of technological pipelines. At that time, deliveries included, among others, gravity pipelines (Weholite pipes DN500-1200 with fittings - 600 m) and pressure pipelines (WehoPipe pipes PN6 and PN10 DN160 - 900 mm with fittings - 1800 m) for transporation of raw and treated sewage, for sludge recirculation (PE pipes DN900 PN6,3), elements of pre-settlers (1800/1200 mm) and secondary settlers (1200/900 mm), recirculated sludge collecting and separating elements and DN1400 manholes adapted for the installation of measuring valves. Uponor also supplied 3 WehoPipe pipelines for crossings of the Oder with horizontal drilling (HDD) method: 2xPE DN160 mm and 1x DN200 mm, each 270 m long. Most of the delivered elements were made to special order based on technical documentation.

Old and new pipeline elements have now been combined by extrusion welding by the Uponor Infra Service Group. As in 1999, Uponor also provided technical support during the design and assembly phase. On the occasion of the modernization of the treatment plant, it was possible to examine the pipe buried 24 years earlier in the laboratory at the Uponor Infra plant in Kleszczów. It turned out that there was an increase in its ring stiffness.

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