

# Shaft by Shaft to Reliable Wastewater Disposal

## HOBAS® Shafts DN 3000 Make their Debut in Russia

HOBAS DN 3000 Shafts equipped with instruments for wastewater disposal made their debut in Russia. The five shafts have been mounted onto concrete slabs in order to secure them in the high groundwater; the final tests of the complete system created enthusiasm.

Saint Petersburg: the City of White Nights, Russia's Venice and now also the City of HOBAS Shafts. Five of these shafts have been installed a few months ago to ensure the reliable wastewater transport to the water treatment plant. In a completely new and up to now unnamed housing area these HOBAS Products have been utilized for the first time ever in Russia. All in all 5 specially equipped HOBAS Shafts have been installed by the contractor SMU-303 between April and July 2011:

- In the first shaft a shredder breaks down large solids in the sewage. The structure is 10 m high and 3 meters in diameter (PN 1, SN 10000).
- Shaft number two collects the sewage; it is also 10 m high and 3 m in diameter (PN 1, SN 10000).
- The third shaft hosts water pumps and closes the circuit of these large structures (10 m height, 3 m diameter, PN 1, SN 10000).
- Shaft number four, 3.5 m in height and 3 m in diameter (PN 1, SN 5000) is a little shorter and hosts flowmeters.
- The well-thought-out network is rounded with the smallest link of the chain: a 3.5 m-high and 2.4 m in diameter shaft (PN 1, SN 5000) equipped to monitor the facility.

This elaborate five-shaft system has been installed due to the large quantities of water expected. The impressive height of 10 meters was necessary to supply the pumped system with sufficient water and to therefore ensure that the system functions correctly.

During rain periods the ground water level reaches up to one meter below the surface. This is why in-situ concrete structures have been excluded already during the early planning period and the contractor opted for the prefabricated, ready-to-install HOBAS Shaft System.

Concrete slabs have been employed in order to prevent the shafts from floating up (the buoyancy force equals 63 tons at maximum ground water level). Two different sizes (15x4x0.5 m for the 10-m-shafts and 8x4x0.4 for the 3.5-m-shafts) have been manufactured. The HOBAS Shafts were laminated onto the concrete slabs and this way fixed in their position.

Year of construction	Installation
<b>2011</b>	<b>open trench</b>
Range of products	Application
<b>Pipes: DN 1400, Shafts: DN 2400 - 3000</b>	<b>Pump shaft Contractor SMU-303</b>
Pressure class	Advantages
<b>PN 1</b>	<b>Prefabricated shafts, long service life; complete, tight system</b>
Stiffness class	
<b>SN 5000 - 10000</b>	

HOBAS Pipes DN 1400 connect the 10-m-shafts and make sure that sufficient water is provided for the pump to run smoothly. Final tests confirmed the flawless service of the complete system; the operators are glad to have chosen HOBAS Pipe Systems to implement the project.

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