

Construction of an underwater duct launched in a ditch connecting an equilibrium tower and effluent treatment station in Guaíba River / RS-Brazil

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Keywords: HPDE PE 100 SDR 33, HPDE PE 100 SDR 26, DN 1.600mm, L=11Km, union of a sunken section with a section floating on the surface.

ABSTRACT

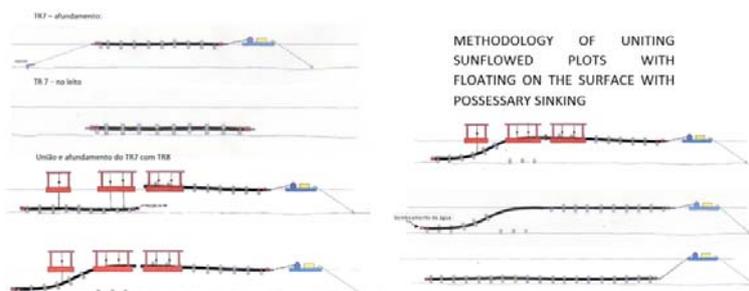
In 2010 SK Infrastructure was called to develop a solution to connect the equilibrium tower to the effluent treatment plant. This interconnection by land would cause serious problems to the traffic and a bigger problem than between the Pumping Station and the Effluent Treatment Station, a slope that would demand electric pumps with energy consumption all the time. The solution was to interconnect through the Guaíba Riverbed by EBE/ETE gravity.

Extension: 11 Km.

Piping: HDPE PE 100, SDR 33 (9 Km) and SDR 26 (2 Km), DN 1.600mm.

The initial idea would be to launch 500m long sections after the second launch has changed to 1.000m long.

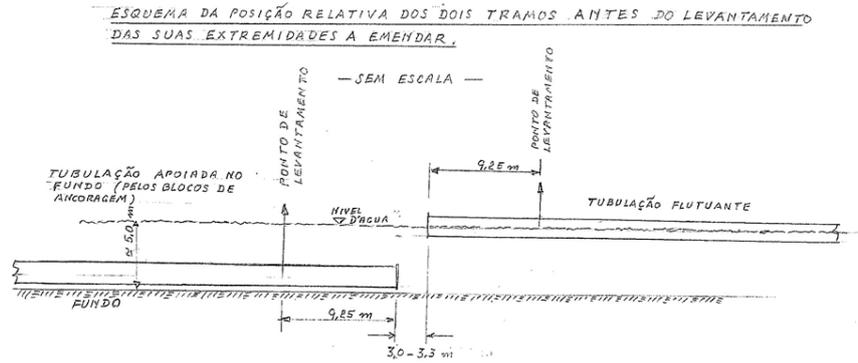
After the launch of the first section, SK proposed an unprecedented methodology in Brazil to perform the union of a sunken section with a section floating on the surface and its subsequent sinking and so on, all the others.



Engineers Julius Eslinger and Wilson Krause had designed this methodology.

Launched in a 5m deep ditch made of organic material in water without visibility, with no conditions for diving work to install joint reels. The ditch has dug by a 20" suction dredge and reposition and discarded along the ditch for further backfill.

Eng. Julius note on the project development:



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SK Infraestrutura was established in 1998 and is a specialist in underwater outfall projects, the company is a reference in Brazil and South America in this sector. SK's principle is to use engineering to promote economic and social development, preserving and caring for the environment.

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