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Horizontal
Directional
Drilling

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Horizontal directional drilling, pipeline installation by pulling or pushing.

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Abstract: The success of a horizontal directional drilling is largely dependent on the success of the installation of the product pipe, which is installed in the created borehole. The costs of damaged pipelines and the costs for additional measures during and after the pipeline installation can be considerable. In order to reduce the unexpected costs related to problems during the pipeline installation, a detailed analysis of the installation should be carried out. Nowadays the pipeline installation can be performed by the normal pull back operation or by pushing in the pipeline in the created borehole. Since the behavior of the pipeline, which is pushed forward by a thruster at the entry point, is different from the behavior during pulling, the right prediction model for the soil-pipeline interaction should be used. The available models for pushing and pulling show that the shape of the drilling line is an important parameter for a good prediction before installing the pipeline.