

Reconstruction of pipelines of public utilities by the Compact Pipe method

Trenchless rehabilitation of water, gas, sewer and industrial pipelines with the assistance of PE pipes bearing

Advantages:

- applicable for diameters between 100-500 mm
- minimal reduction of the diameter
- a statically load pipe
- applicable up to a pressure of 10 bar
- corrosion resistant pipe material
- the capacity of the pipeline will not be reduced
- long distances
/ DN 100 mm 1200 m
/ DN 500 mm 175 m
- 10 years guarantee



The method can be applied for the trenchless reconstruction of old or damaged pipelines. A pipe which - during the production - was folded into a "C"-shape will be inserted into the old pipe cleaned before.

After insertion the steam heads will be mounted at both ends of the CP-pipe and it will be inflated by high pressure steam. In this phase the pipe regains its original round shape (the well-known "memory-effect" of the PE pipes) and it fits tightly to the wall of the pipe to be reconstructed (close-fit).

As a next step the pipe will be cooled down by high pressure air and it will be fixed in its final shape.

Finally the Compact Pipe will be cut to size and the necessary attachments and eventual lateral joints made. At this step any of the standardized profiles of PE pipe systems can be used.



Compact Pipe folded into "C"-shape



Insertion of the Compact Pipe



The drawing heads are being mounted



Insertion of the Compact Pipe



Compact Pipe conveyor



Compact Pipe in the old pipe

Reconstruction of pipelines of public utilities by the method worked out by the company WAVIN

1. The trenchless reconstruction is well applicable in the case of smaller diameters of 100-500 mm and up to a pressure of 10 bar, which cause the most quality problems during conventional methods.

2. A statically self-carrying pipe material will be applied which meets the following standards: DIN 19537 for the reconstruction of sewers, DIN 8074 for potable water and gas pipelines.

Number of the referring CEN-standard: CEN/TC 155/WG 17-Renovation, CEN/TC 155/w.i.s 210.3, 211.1, 211.3

3. A corrosion resistant material will be applied. (PE-HD)

4. Minimal reduction of the diameter which - using the better frictional coefficient of PE-HD - results in a bigger capacity of the pipe.

5. The installation is quick, only a very short standstill is necessary. In the case of a diameter of DN 100 mm 1200 m of pipe can be reconstructed during one standstill, while this amounts to 175 m in the case of a diameter of DN 500.

6. At the attachments the profiles used for pipe construction by PE can be applied.

7. This method meets in all aspects the latest European standards.

8. Compact Pipes will be produced by the company WAVIN.



Compact Pipe pulled in an angle



Compact Pipe pulled in



Intermediate position between "C"-shape and round shape



Compact Pipe being inflated



Blown pipe