

## BONEX-SPIRAL Pipe winding procedure

### The challenge

Pipelines are damaged due to aging and due to different loads generated as a result of changes in the traffic, construction and technology.

The water and sewage seeping because of bad isolating, lead to the deterioration of the soil quality and in other cases the infiltrating water overloaded sewage treatment plants.



### The solution

Surveying the sewer pipe with up-to-date technology and recording the condition of the pipeline.

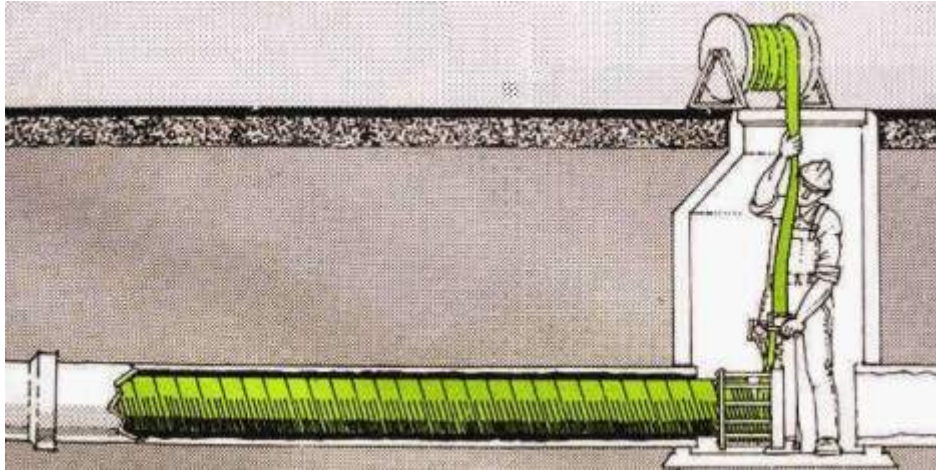
Reconstruction by trenchless rebuilding method.



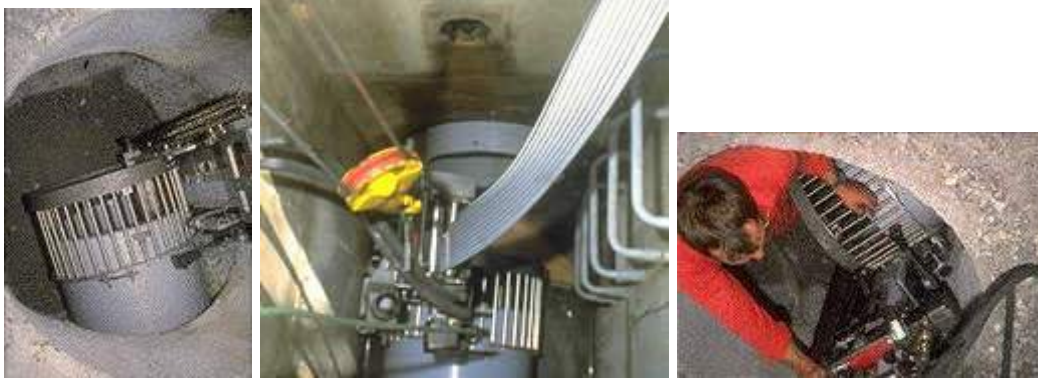
### The winding machine already assembled and ready to work

During the process a single-purpose machine winds a pipe using extruded strips. The equipment is lowered into the cleaning shaft and than the winding begins. The pipe will be moved forward spirally in the old pipe. After the lining of one section the attachments will be prepared and the gaps injected. In this way the reconstruction of the sewer is completed and in spite of the slightly smaller diameter the water supply capacity will not be reduced because the inner surface of the new tube is smooth. The stiffness of the pipe is similar to that of a new PVC tube. It is a great advantage that in principle this procedure can be performed without exposing the pipe, because the tube-winding machine can be lowered through the cleaning shaft.





**Trenchless construction of pipes:**



**Mechanical matching of strip edges, fixing with comb and rubber seals ensuring water tightness:**

