

U-Liners - System

We use the U-liner method for all types of pipes (waste water, drinking water, gas, oil, industry, etc.) with nominal widths of 100 - 400 mm and lengths up to 400 m.

A statically load-bearing HDPE pipe whose outside diameter corresponds to the internal diameter of the defective pipe is extruded in large lengths and formed during production into a U-shape by means of thermomechanical tools. The resultant approx. 25 to 30% reduced diameter enables the U-liner to be drawn into the defective pipeline without difficulty.

After production the U-liner is wound on to drums and transported to the construction site. After the liner has been inserted into the pipeline to be repaired using a winch, it is cut to the correct length and fitted with special connection pieces.

Pressurized steam is then applied. The U-liner pipe now expands to its original shape and makes contact with the outside pipe without any intervening annular gap.

In the sewerage sector the liners are drawn in through existing access shafts. For insertion procedures in pressure areas, only minimal excavation operations (construction trench of approx. 1m in diameter) are necessary.

The sealing on both ends of the U-Liner is done by special rubber seals. The connection of the U-Liner to the standard pipe or to standard fittings is done with special welding fittings or with special widening equipment.

After relining, connections are reopened using a remote control robot system. The exact position of a lateral closed by an inliner can be determined by exact measurement using a TV camera before renovation operations commence.

