







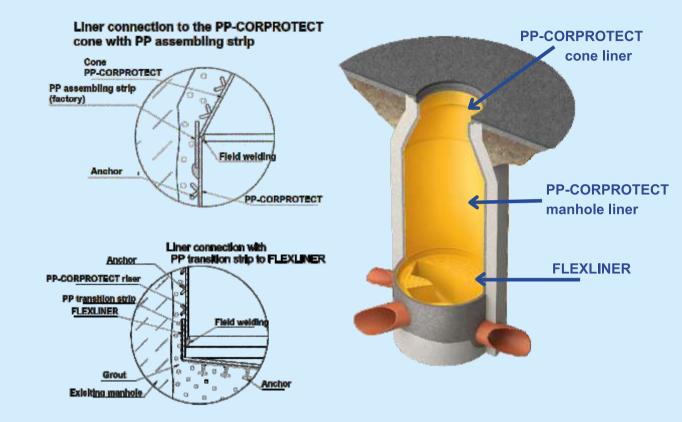




# **FLEXLINER** with full lining

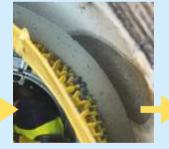
# Full lining of the manhole structure **FLEXLINER with PP-CORPROTECT**

The transition strip incorporated into the FLEXLINER enables the vertical continuation of the rehabilitation with both PP-CORPROTECT lining and FRP materials.











### PREDL-FLEXLINER IN COMBINATION WITH A FRP PIPE LINER









# TRENCHLESS MANHOLE REHABILITATION



### A permanent, fast and hight-quality rehabilitation

With the PREDL FLEXLINER, an environmentally friendly, trenchless manhole rehabilitation is possible within a very short time. For installation, the FLEXLINER is folded **undivided and non-destructively** through the cone into the manhole, and unfolded back to its original size in the manhole.

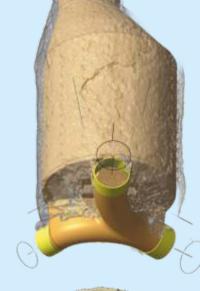
By using the FLEXLINER rehabilitation method and modern 3D laser scan manhole data acquisition, an optimal preparation of the rehabilitation work and a significant reduction in the effort on site is possible.

- -> a hydraulic optimized copy of the old manhole by 3D laser scan.
- -> coherent and permanent connection to the old manhole by means of concrete backfill
- -> further vertical rehabilitation with PP-CORPROTECT
- -> 100% trenchless, NO large construction vehicles
- -> Preservation of existing building materials conserves resources
- -> Rehabilitation process with a service life of approx. 50 years

## Old manhole digitization and modelling

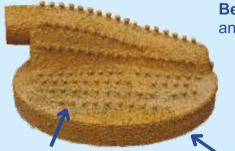






#### **Technical features**

Material: Polyurea, Wanddicke min. 4 mm



**Benching:** with integrated anti-slip protection

**Channel:** best hydraulics due to smooth surface

**Back side:** effective bonding bridges & granulation

Manhole edge: with vertical transition to PP/PE or FRP (GF-UP)

#### Installation of the FLEXLINER



















Various connecting options can be used to the existing pipe, e.g.:

- FRP socket for stainless steel clamp sleeve
- FRP-socket for short liner

