

Procedure

2.2.42 PE Short Pipe Relining System

Procedure Category

Renovation/Relining Procedure

Licencer/Producer

KRT Engineering + Handel GmbH, Sempach

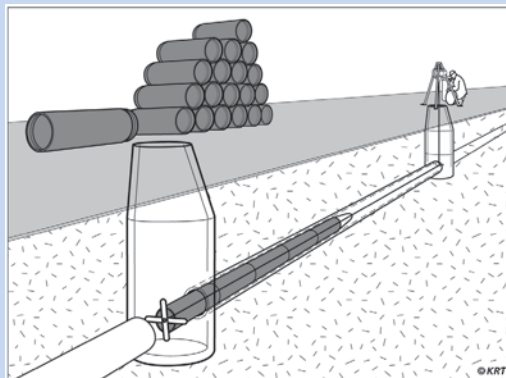
Supplier

KRT Kanalsanierungs-Technik AG

Brief description

Short sleeve jointed HDPE pipes are inserted or drawn into the existing pipe-work via an inspection shaft. Individual short pipes are assembled in the inspection shaft and are either inserted, bolted or welded together. The ends are secured into the shafts (by packing or anchor points) and the annular gap between old and new piping must be plugged. To secure the joints, the section of the pipe in question must remain uncovered.

Schematic Diagram



Materials

HDPE-Pipes

Material Strength: According to manufacturer (varies)

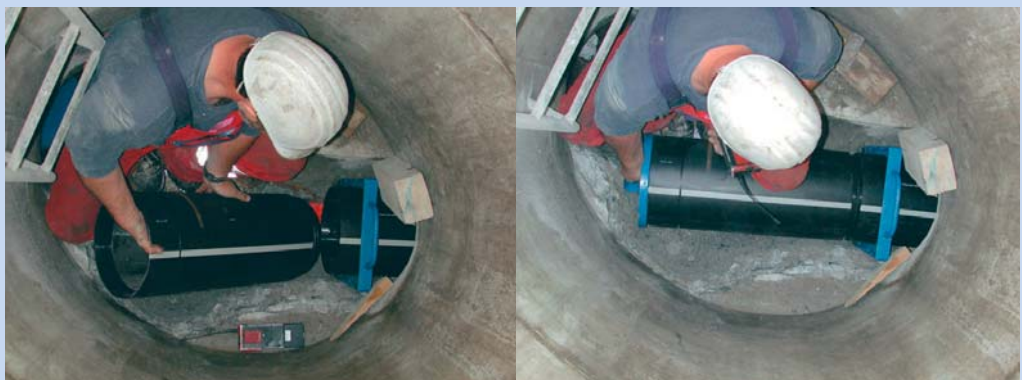
Standards and Guidelines

As for rebuilding

First application

World-wide 1984

Switzerland 1993



KRT Sewer Rehabilitation Technology

Area of Application

Nature of Damage - Damaged surfaces or pipe walls
- Localised damage, such as splits, perforations, fragmenting, or open or damaged sleeve joints

Restrictions See Factory Instructions

Pipe material All materials

Cross-Section Circular profiles

Dimensions Circular profiles NW 100 mm to NW 400 mm

Maximum Range In accordance with Factory Instructions

Curves/U-Bends Only possible with adjacent excavation

Preparatory Work

Installation Installation via existing inspection shafts

Excavations Necessary in the area where joints occur

Pipe Cross-Section High pressure cleaning, restoration of the original cross-section by boring or grinding (sizing)

Lateral Connections Grind back existing connections

Ground Water Penetration by ground water should be sealed off

Water Treatment Necessary to use waste water by-pass pumps

Ventilation In accordance with SUVA¹ safety regulations

Final Tasks

Inspection Shafts Secure into shaft using shaft packing, or anchoring points

Lateral Connections Lateral connections should be tightly jointed with saddle pieces and constructed in the open.

Subsequent Treatment High pressure cleaning / Sizing

Acceptance Inspection with pipe remote cameras / video recording

Quality Assurance Sealing test using air in accordance with VSA guidelines

Remarks

Large reduction in cross-section
Slope to be taken into consideration

Status

January 2000