# PICOTE

## FLEXI-SLIPLINING Environmentally friendly pipe rehabilitation for gravity sewer pipes DN100 - 300

inclinication for gravity server pipes DN100 500

>Emission-Free Installation
>No Bypass Pumping
>DIBt Certified Pipe
> Install through existing manholes
>Fast - 8m per minute!

### **PICOTE FLEXI-SLIPLINING SYSTEM**

#### PICOTE FLEXI-SLIPLINING SYSTEM

The Picote Flexi-Sliplining System is a complete system for the rehabilitation of gravity sewers. Since 2016, more than 80km of Flexi-Pipe has been installed in 16+ countries. The factory-produced pipe is installed without curing – no hazardous chemicals are used during the process. Installation is fast and easy, requiring only a two-man team with minimal training. The Picote Flexi-Sliplining System is a truly trenchless method, eliminating the need to dig pits, remove aggregate or handle heavy equipment.





#### FEATURES

Trenchless Sliplining

Fully welded system

Install through existing manholes

Stand-alone pipe SN4 or SN8 - new pipe for 50+ years

Connectors available

HPWJ tested to 180 bar by WRc\*

#### BENEFITS

Low initial investment

Fast & economical installation

No bypass pumping required

Easy to transport, store & handle

Minimal training required

#### ENVIRONMENT

No emissions during or after installation

No hazardous chemicals - safe for operators

No toxic waste

Low raw material usage

Less CO<sup>2</sup> emissions

\*In accordance with WIS 4-35-01 2008 appendix B





### **INSTALLATION**

#### PREPARATORY MEASURES

The host pipe is cleaned Picote high-speed cleaning or high pressure water jetting. Later the pipeline is inspected with CCTV in order to verify the diameter and condition of the host pipe. A calibration of the host pipe is recommended before relining.

#### RELINING

Flexi-Pipes are welded together above ground to the desired length with welding equipment specially designed for the purpose. The pipe is installed through existing manholes. A Pulling Head is attached to the welded pipe which is pulled in to the host pipe with a winch and a wire. After pulling the ends of the pipes are fixed in the manhole. Then the relined pipeline is inspected with CCTV. The end result is a NEW pipe with a designed lifetime of over 50 years.

#### EASY

Factory produced pipe

No bypass pumping required, pipe remains in service

Only 1–2 days training required

#### FAST

Pulling speed of 8m per minute!

No curing required

Minimal equipment required

#### EFFICIENT

Two-man crew Low installation risk Can negotiate bends NEW pipe – successful installation regardless of any damage or holes in



#### **RELINING OF HOUSE CONNECTIONS**

Picote Flexi-Sliplining is an excellent choice for the rehabilitation of house connections. In shorter sections the relining can even be done manually. The hydraulic capacity of the relined pipe usually remains intact despite the reduction of the inner diameter of the pipe. This is due to the better flowing properties of smooth plastic compared to rougher concrete or cast iron.

#### **CONNECTIONS TO OTHER SEWER SYSTEMS**

Flexi-Pipe can be connected to existing plastic sewers with Flexi-Pipe connectors, which are available in all pipe dimensions. The connectors are equipped with a locking ring and a swelling gasket. Another option is to use weldable connectors to form a complete welded system.

The host pipe (mm)	Flexi-Pipe de/di (mm)	Flexi-Pipe Connector (mm)
100	90 / 75	90/110
125	118 / 102	118/110
150	118/102	118/110
150	125 / 107	125/160
150	140 / 123	140/160
200	175/150	175/160
225	200/170	200/200
250	235/200	235/250
300	270/240	270/250



Flexi-Pipe Weldable Connectors

#### INSTALLATION EQUIPMENT

Together with Renos, Picote Solutions has redesigned and developed Flexi-Pipe installation equipment. New tools for the welding process and other equipment were launched in 2021. These tools make the installing process easier, faster and more efficient, enabling the system to be adopted for projects globally. The tools are simple, lightweight and have good ergonomics. Detailed information of the installation equipment can be found at **www.picotegroup.com** and **www.renos.fi/en**.





#### **PICOTE CONNECTION COLLAR SYSTEM FOR** FLEXI-SLIPLINING LATERAL CONNECTION REPAIR

More than a fifth of all damage to the sewer network is related to side (lateral) connections (DWA survey 2015).

Failure in the installation of lateral connections may result to leaking connections, root penetration, pipe blockages or contamination in the ground water.

Lateral connections to Flexi-Pipe can be made with Picote Connection Collar System. The Picote Flexi-Sliplining Connection Collar is installed without digging and offers a smooth and leak-tight solution.

The Picote Maxi Miller and custom designed Twister Lateral Cutter Sealed T-Connection Collar with Front Plastic Panels work perfectly to open the laterals. The Picote Smart Cutter<sup>™</sup> with Side Grinding Panels is used to finalise any remaining edges before installing the collar.

Picote's unique, fully taped-seam Connection Collars and custom Push Rods enable an easy rehabilitation of lateral connections. The fully taped seams eliminate risk of resin leakage, creating a high-quality connection. Optional steam curing for faster project completion available. Bypass pumping is needed during opening and installing of Connection Collars.







# **FLEXI-SLIPLINING**

SOCIAL & ENVIRONMENTAL IMPACT





#### SOCIAL IMPACT

- No toxic material in the process - better health & safety
- No toxic waste after installation
- Fast installation
   less disruption to traffic & residents
- Minimal equipment required





#### **ENVIRONMENTAL IMPACT**

- Low weight
  - less raw materials used
  - less CO<sup>2</sup> emissions
- Easy transportation & handling
- No toxic materials in the process
- No emissions in the air or water during or after installation
- Prepared on site for precision
   minimal waste

Installation in winter time, as low as -10°C possible!



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## PICOTE

Training and technical support available from Picote training centres or from customer locations.

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