ScanTECH

Industrial Pipe Solutions Worldwide

EGELINER

For close-fit rehabilitation solutions

Trenchless pipeline renewal for:
Drinking water
Industry water
Waste water

Before

After

The Egeliner for close-fit rehabilitation solutions

The Close-fit liner is a relining technique without annular gap. It is suitable for rehabilitation of water and gas pipes with a maximum operating pressure of PN10 for water and PN4 for gas.

In rehabilitation of pipes with no annular gap, the PE pipe is inserted into the old pipe in such a way that the outer diameter of the PE pipe is equivalent to the inner diameter of the old pipe, i.e., the pipe contacts closely with the old pipe, leading to the use of the term “close fit”. Thanks to their fluid-mechanically favorable inner wall surfaces, PE pipes present comparatively low resistance. In practice, this means that capacity can be increased in many cases, despite a reduction in cross-section.
In order to fulfill most market preferences and requirements, ScanTech’s portfolio of rehabilitation solutions and products for water consists of products applicable for both methods – with and without annular gap or space between the host pipe and the liner outer wall.
Our Close-fit liner is a polyethylene pipe that is being deliberately deformed or folded mechanically during the production process. Due to the smaller cross-section, the pipe can be fitted into the old pipe problem-free using a winch. The pipe is then heated with steam in a controlled process to reverse the deformation.
The pipe, thus forms back to its original round shape and is now tightly fitting the old pipe as a statically new pipe (close fit).

Application fields

- Trenchless renewal of drinking water, industry and wastewater pipelines
- For old pipes made from any kind of material
- Dimensions range: 4“ to 16“ / 100 mm to 432 mm
- SDR 17, other SDRs on request
- Pressure up to 10 bar

Other industry options

We also offer a high temperature Close-fit liner suitable for industrial applications. This liner has been designed for higher media temperatures of up to 70°C.

Since there are rehabilitation circumstances that do not allow for an optimum preparation of the old pipe, we can also offer a heavy duty liner made of enforced PE100 material which is both resistant to stress cracks and puncturing loads and thus more secured during the rehabilitation process.

The following dimensions are available for rehabilitating drinking water pipes, sewage pressure pipes or industrial pipelines. Other dimensions upon request.

DN / OD		Wall thickness [mm]	Rahabilitation range [mm]
mm	inches	SDR 17*	PE 100
100	4”	5,9	97 - 102
125	5”	7,4	121 - 127
145	5,7”	8,6	140 - 147
150	6”	8,9	145 - 152
200	8”	11,8	194 - 204
250	10”	14,8	241 - 253
300	12”	17,7	289 - 303
350	14”	20,6	340 - 357
400	16”	23,3	385 - 404
*other SDRs on request			

Source: Egeplast

Installation of the factory folded liner inside the host pipe.

Source: Egeplast

Close-fitting/fixing the liner inside the host pipe using hot steam.

Overview of the advantages of the close-fit liner

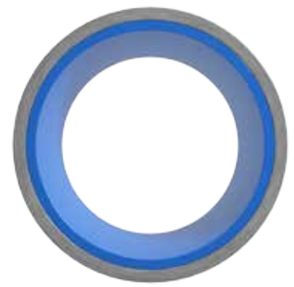
- Pipe insertion through excavation pits or existing manholes
- Small amount of space required for the building site
- Traffic can flow with minimum obstruction
- Lowest costs due to short rehabilitation periods and limited civil engineering work
- Flexible, statically stable pipe system, low loss of cross-section
- Excellent hydraulic properties, high flow capacities
- Reliable connection technology due to proven systems, weld-able and thus durably tight
- Odorless and tasteless
- Good chemical stability, verified long-term performance of at least 50 years,
- Recyclable, low environmental impact

Egeliner is developed together with “Egeplast International GmbH”. The factory is located in Germany and is operating under the strictest quality and environmental codes in europe
Egeplast and Scantech are looking back at a decade long Technology and Quality driven partnership on various global markets.

The Egeliner Close-fit solution is widely used throughout European municipalities and thousand of kilometers of water and sewer mains have been installed in a number of countries.

It is also the preferred rehabilitation solution within WSD Hong Kong for pipes with pressure rating of up to 10 bar, for both potable water and for water used in fire preventing installations.

During installation



After installation

Infrastructures of tomorrow, Hongkong:

The global population is growing and with it megacities are growing in height. Skyscrapers with more than 100 storeys have long been normal. In coming years metropolises will continue to expand, thereby placing enormous challenges on the infrastructure. Ultimately rehabilitation work on supply and sewage pipes in large cities results in substantial interventions in the traffic flow using the open trench installation. Therefore it is time to take advantage of the NO-DIG rehabilitation methods.

Egeliner® – is one of the options as little space is required for the construction site.

The Egeliner® is a new preformed polyethylene pipe that facilitates a close-fit lining. With this method an old, defective pipe system is replaced with a new pipe system using the closed method. The service life corresponds to that of a new installation using the trench method. 50 years is the standard.

Due to the decreased cross-section of the folded Egeliner®, the new pipe can easily be inserted through pits or existing shafts into the old pipe using a winch. The new pipe then is closely installed against the old pipe, as a fully structurally independent pipe. The Egeliner can be used for the trenchless rehabilitation of drinking water, town gas and sewage pipelines with any type of old pipe material. Due to the small amount of space required on the construction site, traffic can largely continue to run freely and shorter rehabilitation period means that the total costs are significantly lower.

A summary of the advantages:

- Pipe insertion through pits or existing shafts
- Little space required for the construction site
- Traffic can largely continue to run freely
- Lower costs due to short rehabilitation period and little underground engineering work
- Structurally stable pipe system
- Low cross-section loss
- Best hydraulic properties
- Reliable joining technique due to proven systems
- Safeguarded long-term performance of at least 50 years
- Little environmental issues

Application fields:

- Trenchless rehabilitation of drinking water, gas and sewage pipelines
- For all types of old pipe material
- Dimension range DN 4“ to / 100 mm to 432 mm
- SDR 17/SDR 17.6 / others on request
- Pressure stages: up to 10 bar

ScanTECH
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ScanTech proactively addresses both quality and environmental concerns from component manufacturing to installation. ISO 9001 and ISO 14001 standards are the basis for the manufacture of all parts in pipe components and systems delivered by ScanTech.

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