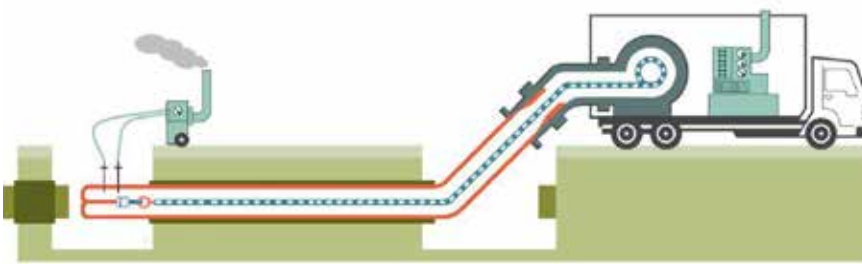


Systematic Pipe Rehabilitation



BlueLine

The ideal solution for d Pipe-in-Pipe



Inversion of the BlueLiner into the existing old pipe by means of a pressure drum



Liner end collar for the connection with the flange mounted before the installation in case of large pipe dimensions

The product

The BlueLiner is a flexible hose consisting of a composite material of glass and felt coated on the outside with a polyolefin. It is impregnated directly before the installation in a mobile impregnation unit on site with a two-component epoxy resin under defined and reproducible quality conditions and under vacuum, calibrated and inserted into the existing pipeline.

Specifications:

Field of application:	Drinking water pipelines and other pressure pipes
Dimension:	100 mm bis 1000 mm (4" bis 40")
Resin:	Epoxy resin system (EP) MaxPox®
Liner:	Composite material glass/felt with polyolefin coating
Hardening:	Steam or hot water
Impregnation on site:	Mobile impregnation

The field of application

The BlueLine procedure has been developed for the trenchless rehabilitation of pressure pipelines for drinking water. Thanks to the pipe-in-pipe system this rehabilitation procedure does not depend on the old pipe. The structure is self-supporting, i.e., it can bear all occurring static external and internal load without any support of the old pipe. Usually the field of application covers nominal widths from DN 100 to DN 1000 with different installation lengths up to 200 m and more, with a wall thickness of 5 to 21 mm depending on the static requirement.

Impregnation unit in use in the open country



rehabilitating water pipes

The installation

BlueLine is the procedure where a flexible hose carrier is impregnated with a two-component epoxy resin, inserted into the line to be rehabilitated and then hardened by the addition of heat with steam or hot water to form a new pipe. There are two different ways of installation: the so-called BlueLine inversion procedure is a procedure where the inversion takes place by means of compressed air or a hydrostatic water column; the BlueLine pull-in procedure is applied in larger pipe dimensions where the liner is pulled-in by means of a winch and then erected by the inversion of a calibration hose. The type of equipment (mixing and inversion technique) being applied here is mobile and has a modular structure. The wall thickness of the liners is 5 to 21 mm depending on the required statics. The maximum operating pressure is at up to 16 Bar. The liner once hardened is cut open at the start and the target point and connected with the old pipeline. The connecting methods vary according to the requirement of the net operator and the flow medium. House connections are to be installed from the outside with the tapping sleeve. The result is a new pipe, the standard and the quality of which meet the high requirements of the manufacture in the factory.

The mixing unit

The preparation of the BlueLiner is provided in the mobile impregnation unit, the components of which are optimally adapted to the procedure. The SPC-controlled, fully-automatic mixing unit works as a closed system. The resin and hardener tanks have a volume of 3,000 kg and are fully air-conditioned. Thus the resin temperature can be kept constant irrespective of the outer influences. Defined quantities of resin and hardener are transported via an adjustable conveyor pump to the compulsory mixer, merged at the exclusion of air, then fed into the liner under vacuum and finally calibrated. All data relevant to the system are continuously documented and controlled by electronic measuring devices integrated by the system manufacturer.



EWE tapping valve for tapping under operating pressure



On-site impregnation with the epoxy resin MaxPox®

The advantages

The advantages of the BlueLine procedure and the modular structure of its mobile installation equipment are in fact various. So it is possible to work in places where a site access as usual is not possible. Steam and impregnation units meet the most modern technological standard and the flexible hose composed of glass and felt has excellent material properties. In addition, its ability to bend allows the application in pipelines with bends up to 45° and more as well as in inverted siphons. The BlueLine system complies with the regulations of the DVGW worksheet W270 as well as the "Guideline of the Federal environment office for the hygienic evaluation of organic materials in contact with drinking water"(KTW guideline). From this powerful package of the most modern rehabilitation technology and high-quality resin systems net operators and contractors benefit in form of technologically sophisticated, durable and economic rehabilitation results.



- BlueLine Procedure
- Burst Lining
- Cement Mortar Lining
- Compact Pipe
- CP-ZA 2012-Top-Hat Profile
- DS-CityLiner
- DS - Hose Relining
- DynTec (close-fit-lining)
- Flexoren Relining
- House and Industry Liner
- Installation Procedures/ Large Profile Rehabilitation
- KA-TE Robotics
- Manual Rehabilitation
- Partial In-Liner
- Pipe Relining (long pipe, short pipe and pipe run)
- Polyester Liner
- Superheated Steam Liner
- UV Liner
- and other procedures

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