



*Innovative and proven systems for the reconstruction
of waste water related buildings and pipe systems*



I.S.T. - Your competent partner

The specialized processing companies of the canalization industry request competent and effective partners, which offer consolidated knowledge and a practice oriented, wide product portfolio.

I.S.T. GmbH comprehensively covers exactly this requirement profile. In addition to the consumables, such as reaction resins, hose liners and glass fabric mats, we offer a comprehensive assortment

of liner installation equipment, adapter reconstruction systems as well as milling robots and camera units.

This includes extremely innovative inhouse developments with many unique features, which have not been available in the past in this form.

The delivery program is completed by a comprehensive product

assortment for the canal manhole, separator and sewage plant reconstruction.

Experienced engineers subject our products to strict quality controls. Analyses of independent institutes certify - on the request of I.S.T. GmbH and its partners - again and again the high quality as well as the harmlessness of the products that we offer.

Side inlets reconstruction with the TOP HAT system

The mature and practice oriented process is a cost effective supplement to the I.S.T. Liner system to implement permanently tight side inlets.

- Caps are available in different dimensions and bendings.
- Cap materials include polyester needle felt with or without coating, also in combination with Advantex® glass fiber material.
- Reaction resins:
Silicate resin Easy PUR or
epoxide resin Easy POX 1504
- Cap packer:
6" - 24" (main canal)
4" - 8" (side inlet)

**Power
TOP HAT System**



**Easy
TOP HAT**

Caps with different bendings and dimensions

Power CUTTER - Milling robots and control systems

I.S.T. offers a complete program of mature and proven robot units for almost all applications in the canal reconstruction area.

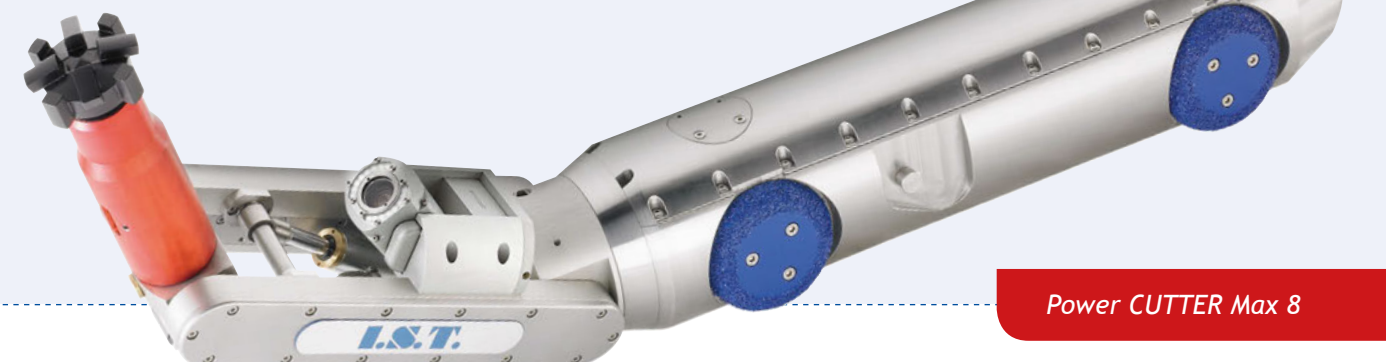
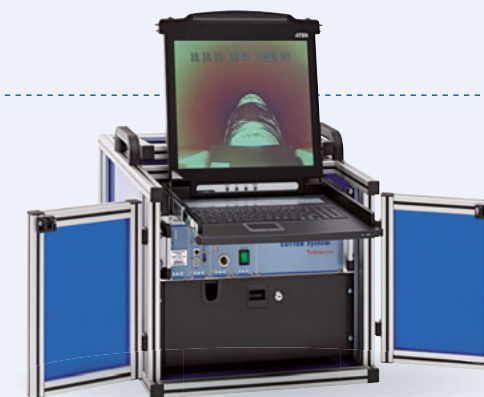
The different Power CUTTER types cover the complete nominal width range from 4" to 32" and

they are characterized by high quality materials, robustness and ease of maintenance.

**Power
CUTTER**



Power CUTTER Mini 6



Power CUTTER Max 8

I.S.T. LINER systems

The hose system with exceptional versatility, which meets the highest quality requirements; with DIBt approval No. Z-42.3-414.

Hose liners

Polyester needle felt hoses from 2" to 48" in different wall thicknesses, laminations and seam designs permit in part also the reconstruction of arcs up to 87° as well as a sudden dimension change.



Versatility practice oriented, variability - the liner systems by I.S.T.

Support hoses

Support hoses from 2.5" to 32" in different designs permit the inversion with an „open end“ during heat curing up to max + 176 °F. These hoses can normally be re-used.

Resin systems

The epoxide resins series Easy Pox (4 cold and 2 heat curing systems) as well are ideally adapted to the I.S.T. Liner hose liners and they

are suitable for many conditions.



Short liner system „Spot Repair System“/ „Spot Repair System Plus“

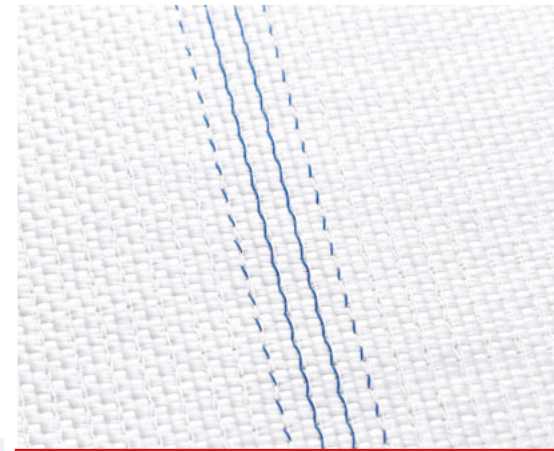
Advantex® - glass fiber mats

Bi-directional glass complexes with different surface weights and width based on the corrosion resistant ECR glass represent the carrier material for the Spot Liner.



They are cut at the construction site, special widths are offered in some cases, e.g. for 6", which minimizes the clippings.

The Advantex® has an outstanding processing capability and the impregnation with the reaction resins of series Easy PUR is excellent.



Detail view of the glass fiber mat

Silicate resins

Easy PUR/Easy PUR Plus is available as a two or three component silicate resin system and it was especially developed for the short liner use on most pipe surfaces.

The very good impregnation characteristics and the excellent adhesion with the old pipe characterize this elastic silicate resin in addition to the outstanding resistance after curing against the different media. Formulations developed inhouse prevent foaming

in case of moisture and water contact.

The different product options permit a high versatility and variability with respect to the processing and curing times.

Different packaging sizes and high cost effectiveness, especially practical working due to components whose volume is matched to each other in small packages

without measuring and weighing work of the individual components at the construction site.

Several test certificates, many references and the DIBt approval No. Z-42.3-388 or Z-42.3-533 provide for many years proof for our claim that we deliver the best possible quality to the user even in the short liner area.



Hose liner production in the plant of I.S.T. Bochum/Germany



Technical reconstruction equipment

Our assortment consists of high quality and mature equipment, which was further developed for many years in close cooperation with competent skilled workers and it was optimized practice oriented. Based on the many model varieties with respect to size, output power and equipment, the users can put the fitting configuration together when selecting their reconstruction equipment. Individual requirements can be included.

Power TABLE

Power TABLE - Impregnation systems

Impregnation systems in different sizes and designs for hoses from 2" to 40" and - due to their variability - they provide an even liner impregnation and an optimum resin distribution.



Power VACUUM

Power VACUUM - Pumps

Due to the vacuuming of the felt hose, they provide a perfect impregnation with reaction resins of the Easy Pox series.



Impregnation system and vacuum pump - perfect for an optimum impregnation

Power DRUM - Inversion drums

Inversion drums for hose liners from 2" to 40" in a high quality and practice oriented design will be manufactured individually, order related and under consideration of the customer requirements.

Power DRUM



Power BOX - Hot water systems

Due to their effectiveness, the power BOX „Classic“ (up to 8") and „Premium“ (up to 12") are suitable for a fast and controlled curing of hose liners with the respective dimensions.

Power BOX



Power STEAM - Steam systems

Fully automatic steam systems with different output classes have been proven for smaller nominal widths as well as especially for the curing of larger hose liners.

Power STEAM



Shut-off bladder

Shut-off bladders with or without passage are essential equipment. They are available from us in different designs and dimensions for a variety of sealing works.



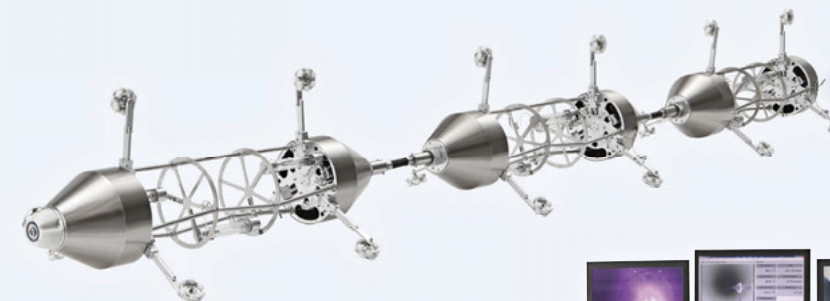
Packers

A large assortment of robust and high quality packers in any dimension and a variety of product options, with and without wheels, complete our product range.



Power LIGHT UV technology

I.S.T. provides proven and reliable UV systems for the controlled curing of UV-reactive, polyester-resin-permeated hose liners. Many important, highly innovative features are only available from I.S.T.



Power LIGHT



Power LIGHT UV technology - for a controlled curing process

The Revolutionary “Spray Technology” for In-House Renovation

The system

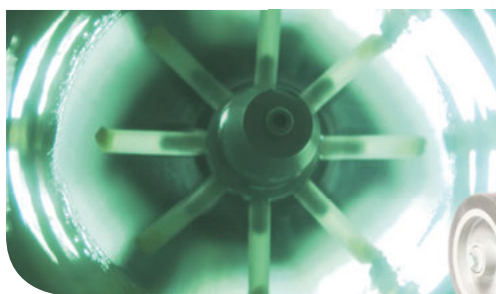
The two elements of the clever system, consisting of ElastoTec machine technology and the 2-component reaction plastic ElastoFlake, are perfectly coordinated.

This reliable and cost-effective pipe renovation system is especially useful for in-house applications, which often involve tight conditions with small and hard-to-reach nominal widths ranging from 1.25" to 12", as well as in components like downpipes.

All work, including the initial cleaning of pipes with no damage to the building fabric (e.g. tiles), is professionally performed

by trained personnel without any contamination from the renovation work.

This CE-certified system is suitable for almost every common pipe substance, for instance the standard plastics used in sanitary facilities (PVC, PE, PP, GRP), as well as concrete, fiber cement, stoneware, and metals like copper, stainless steel and/or cast iron.



**ELASTOTEC
SPRAY SYSTEM**

ElastoTec machine technology

ElastoFlake coating material

Damaged pipes are sealed and coated using a two-component PU material formulated especially for these requirements, with a very fast reaction time - it cures so quickly that it cannot run off during the introduction process and creates a

final, even material thickness of ≥ 3 mm. It is applied in multiple layers / work steps.

Once it is cured, this coating material is resistant to pressure, domestic sewage and grease.

Because of its flexibility, ElastoFlake can also be used at higher

temperatures and with temperature fluctuations.

In addition, it protects the coated pipes from mechanical wear thanks to its very smooth surface, ensures very low adhesions/deposits, and improves the flow performance.



Pipe renovated using ElastoFlake

Further information under

www.ist-na.com

