

Innovative Pipe Repair

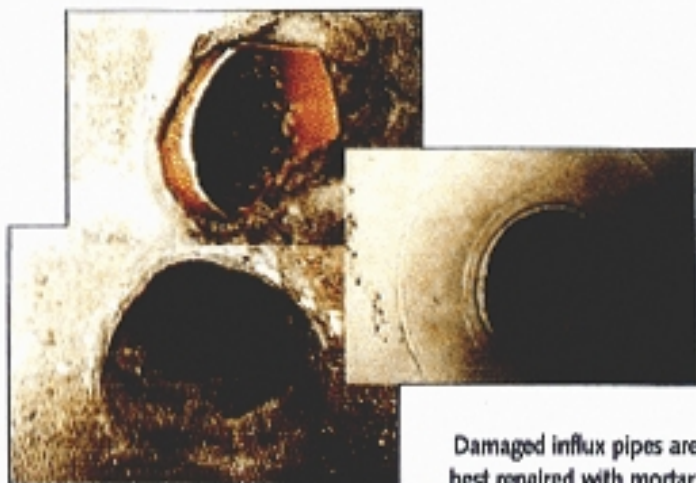
One of the most expensive renovation measures which is always dreaded by those who will have to pay for it is the exchange of leaky pipes.

I.S.T., a dynamic German engineering company, offers ingenious solutions to this problem.

Thanks to the I.S.T. House Connection Technology, an inversion-based method for inserting liners into pipes with a maximum length of 50 meters and nominal diameters between 80 and 300 DN, laborious and expensive pipe repairs are no longer necessary. The tried and tested system, which helps to save 50 percent of the costs that would be incurred by the laying of new pipes, is successfully employed by a great many municipal departments of works and in numerous industrial plants. Highly flexible liner materials facilitate both the almost crease-free renovation of 90-degree pipe bends and the reduction of diameters to the next smaller or larger nominal width. In addition to that, the inversion method makes it possible to blow in the liner from one side through very small openings (e.g. cleansing flaps). By using specific resin-hardening components, one can influence the time the liner needs to harden.

On top of that, the House Connection Technology is based on physiologically harmless materials and thus contributes to the protection of the environment.

I.S.T.'s product range also includes an innovative system for the durable and low-cost repair of leaky connection pieces. A mobile packer is inserted into the damaged pipe through the control shaft, the opening of a flexible valve is placed beneath the influx pipe and the valve is filled with compressed air until it touches the pipe wall. Subsequently, special white mortar is pressed into the leaks. After the mortar has hardened, the valve is deaerated and the packer is drawn out of the pipe. There is no need for any follow-up treatment. With the help of this method, it is even possible to mend radial cracks or major leaks. The system comes with a remote-controlled concrete pump and an integrated camera. Another ingenious I.S.T.



Damaged influx pipes are best repaired with mortar.

technology is the Saertex-Lining System. The Saertex Liner, which is impregnated with polyester resin, is a high-grade quality product, manufactured by the I.S.T. cooperation partner Saertex MultiCom, who also produces glass components for the aviation and windpower industry.



Pipe repair systems supplied by I.S.T. are excellent weapons in the battle against leaks.

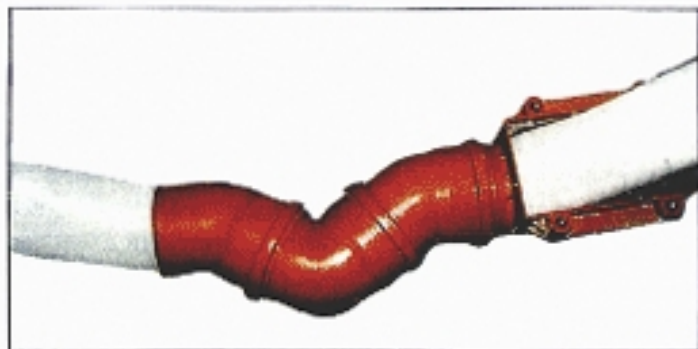
Here, an impregnated glass liner is quickly drawn from one shaft to another on a gliding foil in order to prevent the liner from getting damaged. The impregnated liner is blown up with compressed air until it closely fits the shaft wall. Subsequent to that, the resin is activated by means of steam. After the resin has become solid, it is hardened one more time to optimize its stiffness and resistance to chemicals. The instal-

lation process, which usually takes four hours, is monitored from an operator-friendly control panel.

Individual leaks are best repaired with the help of the popular I.S.T. Spot Repair System. Infiltration is stopped by inserting an impregnated, yet eco-friendly fiberglass liner into the damaged pipe and blowing in hot steam the pressure of which presses the liner against the pipe wall. The epoxy resin of the liner hardens within an hour and literally seals the chinks. With the I.S.T. Spot Repair System, a two-person installation team can carry out three to five repairs per day.

Being a service-minded company, I.S.T. does not only sell repair equipment at attractive prices but also offers a so-called system partnership: Under this arrangement, the customer gets pipe repair machines and advertising leaflets against payment of a system fee, which also includes support by I.S.T. engineers/marketing specialists as well as insurance cover for transportation- and operation-related damage.

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A liner is blown into a pipe through a cleansing flap.