

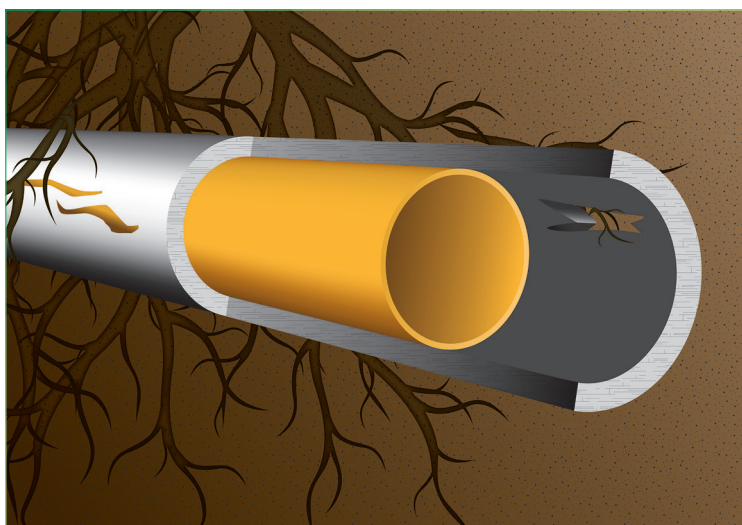
# PipeLining, Patching & Repair

Give your old pipe up to 50 more years of life with a strong, high-tech interior lining.

Now you can renew old pipes with minimal disruption to your business, your landscape and your budget.

Traditional sewer line repair/replacement involves time-consuming, wide-spreading, large-vehicle excavation. The noise, mess and water shutdowns can inconvenience customers and employees for weeks.

PipeLining offers a faster, cheaper, less disruptive alternative, so you can focus on your business. Minimally invasive, PipeLining rebuilds cracked, broken, leaking and root-infested lines from the *inside*.



**The PipeLining Process** requires only a small dig at the entry point (and a possible small dig at the exit). This trenchless technology is compatible with virtually any type of pipe, whether clay, cast iron, concrete or PVC. It is flexible enough to handle bends. Strong enough to be used as a bridge between pipes. And can be used on a full length pipeline or just a small damaged section.

Compared to traditional pipe repair, PipeLining is:

- **very fast**; installation usually happens in one day
- **less disruptive** to your business productivity
- **less expensive**, requiring just a small crew and a few pieces of specialized equipment
- **quieter and less messy** than traditional excavation
- **environmentally friendly**, with little to no landscaping damage

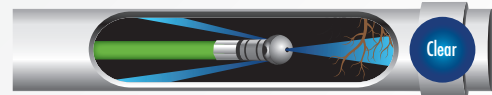
## Preventing many future repairs, PipeLining:

- discourages future deposit buildup
- stops future corrosion
- deters root infestation
- stops rainwater infiltration
- keeps sewer water from leaking
- is stronger and more watertight than PVC
- is expected to last for up to 50 years

### The PipeLining Process

Once we've met and discussed your needs, we'll prepare recommendations for your project as well as an estimate. If PipeLining is the way to go, installation usually requires just a day to execute.

**1) Clear Obstructions.** We utilize hydro-jetting technology to clear tree roots, sludge, grease and other debris and buildup.



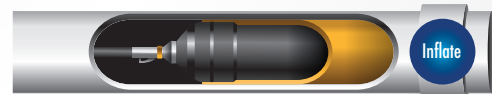
**2) Video Inspection.** Using a high-definition pipe camera, we make sure there are no further blockages and that the pipe is ready. On occasion, the cleaning alone may remedy the original pipe problems. If not, we then measure the length of the pipe.



**3) Prepare Liner.** We cut the tubular pipe liner to size and fill it with epoxy resin; standard tubes are used for straight pipes and more flexible tubes are used for acute bends, angles and transitions. We load the liner into a high pressure inversion unit and insert it through a single access point of your pipe.



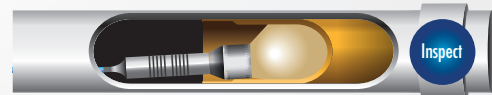
**4) Inflate Bladder.** We insert a steam bladder, then pressurize it to inflate the liner tube, pushing it snug against the inside of the pipe. We continue to pressurize to form, heat and cure the new "pipe in a pipe."



**5) Deflate Bladder.** Once the liner has cured (approximately 2 to 4 hours) we deflate and remove the bladder, leaving behind the newly lined pipe.



**6) Final Inspection.** Using the camera, we perform a final inspection to ensure success and document the new liner for your records.



**Plumbing Source**

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