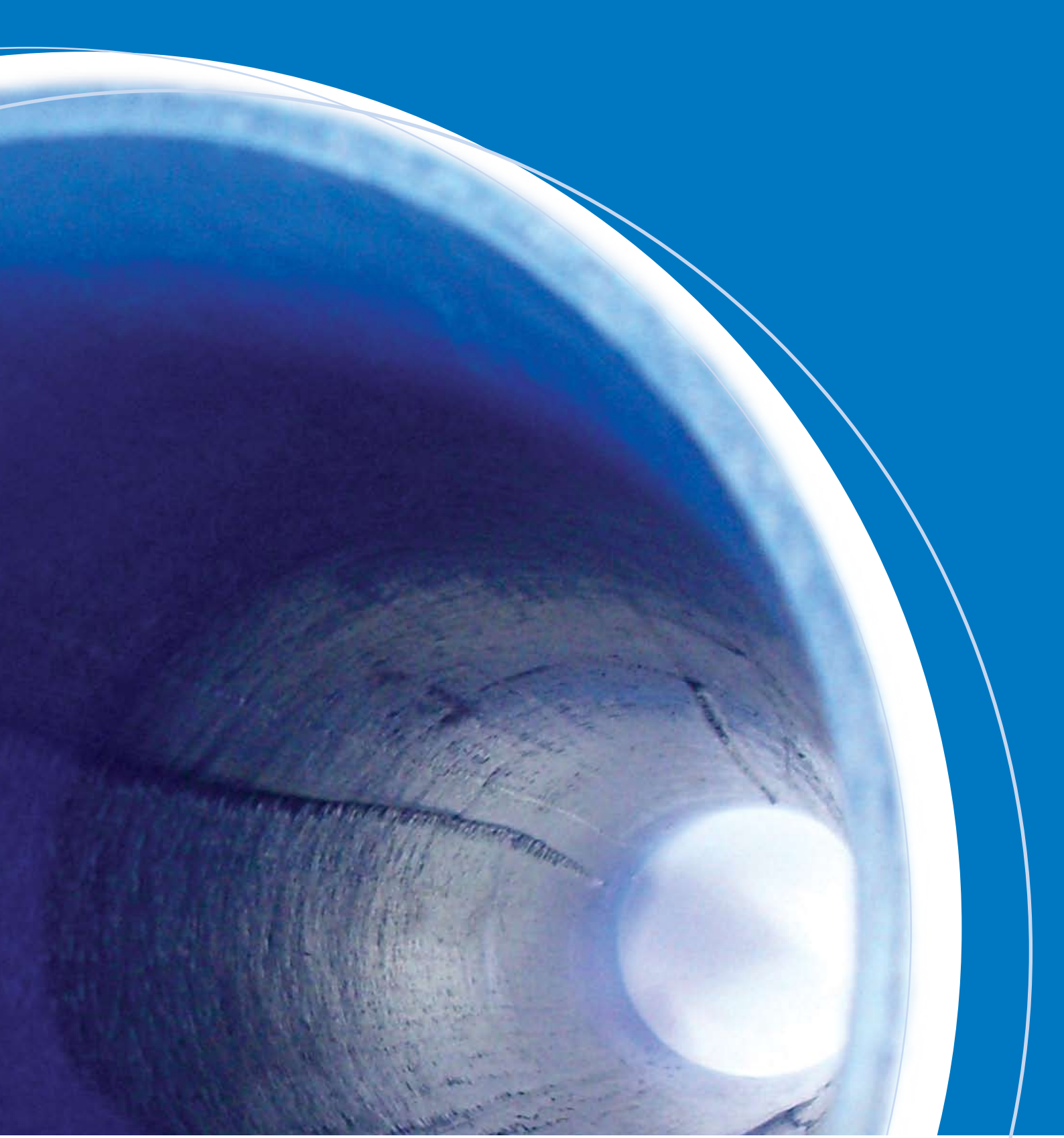

SAPIPERELINING

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SA Pipe Relining is dedicated to finding simple, non intrusive solutions to complex problems using latest technologies and methodical work practises in an environmentally friendly and cost effective manner.

SERVICE STREAMS

- CCTV inspections
- High velocity & pressure hydrojetting
- Pipe and junction relining waste & water*

Relining

Using the latest and most advanced Epoxy Pipe Relining Technology - SA Pipe Relining delivers a trenchless cost effective solution to internal wall pipeline repairs. With the added advantage of relining junctions, changes in direction and pipe sizes, as well as start stop relining and sectional repairs, SA Pipe Relining is capable of meeting all pipe repair requirements.

Relining repairs to sewer, stormwater, vertical stacks, downpipes or other pipelines in situ without costly excavation or replacement is today's technology and solution to these problems.

With SA Pipe Relining's capability of completing sectional repairs or entire main line relines on pipelines from 40mm to 1600mm diameter on sewer, stormwater or mains water lines*, the economic and environmental advantages this technology and systems has to offer has proven very desirable for home owners through to water authorities.

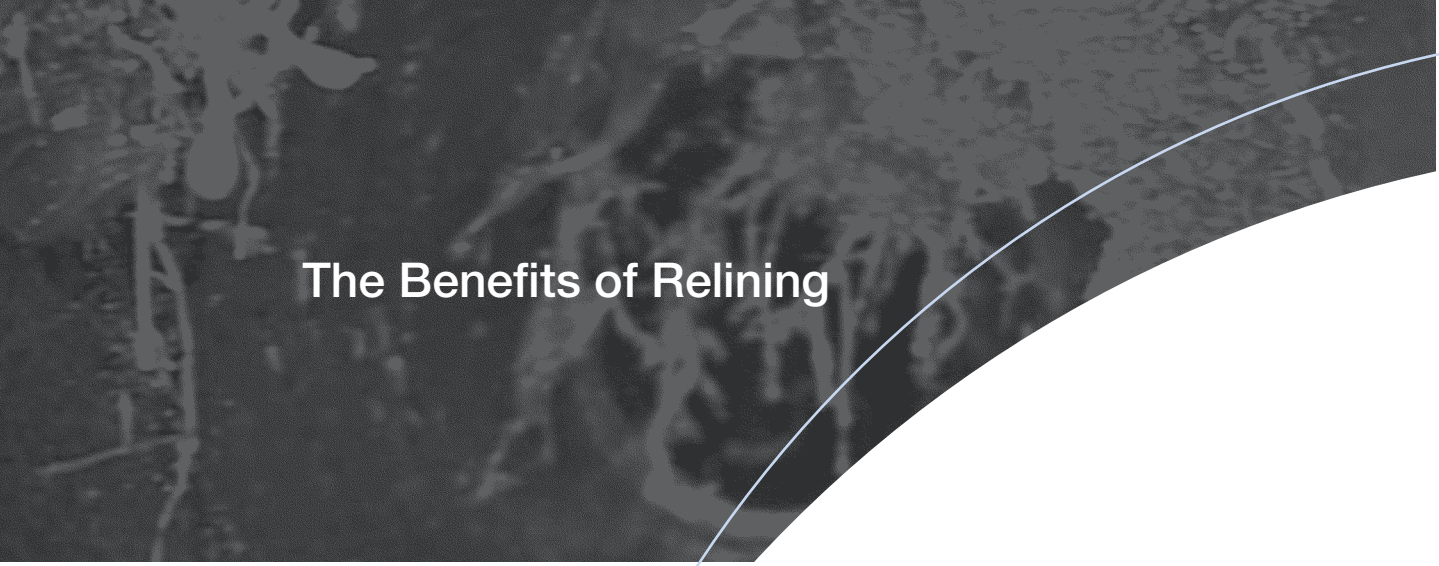
Relining System & Technology

Trenchless technology has created an alternative to pipeline replacement. SA Pipe Relining is the South Australian approved license holder of Nu Flow Technologies. Using this technology, commonly referred to as Cured-In-Place-Pipe (CIPP) and Pull-In-Place (PIP), SA Pipe Relining has the ability to create a 'pipe within a pipe'. This is achieved using specific environmentally friendly, scientifically tested epoxy resins, creating a new seamless structural strength pipe, junction or sectional repair – within the host pipe without damage to structures, floors, landscapes or causing nuisance and inconvenience.

The seamless liner is custom made from fabric that is impregnated with specific environmentally friendly two part epoxy resins and a pre inserted bladder spanning the length of the liner. The liner is inserted into the pipeline through an inspection opening or access point and is positioned in the desired location. The bladder is then inflated using compressed air causing the liner to mould to the host pipe, filling cracks, holes and spanning over any voids in the pipeline. The liner can be custom made to length, from 1m upwards allowing small sectional repairs to be carried out or complete mains relined.

The Nu Flow Liner will adhere to PVC, Cast Iron, Concrete Pipe, Roll Groove, Galvanised Pipe, Copper, HDPE, Poly Pipe, Zincalume, Cardboard – absolutely anything.

This particular technology's greatest advantage is the ability to structurally epoxy reline multiple angle bends, junctions and changes in pipe size with the option of only lining the area in need of repair. This provides significant cost savings and flexibility as the need to reline entire lengths of pipe from point of entry to point of repair is not necessarily required.



The Benefits of Relining

The Relining Process

The Relining process consists of four steps:

1. Pipelines are hydrojetted using the appropriate hydrojetting tools for the job. This ensures the internals of each pipeline are thoroughly and uniformly cleaned and all obstructions have been removed. Once clean the pipelines are ready to be inspected.

2. Specific CCTV equipment suited to the application is used to inspect the internals of the pipelines. The footage is recorded in full colour onto DVD and a complete report is created detailing findings. This information may include misalignment or collapse of drains, missing sections, cracks, water ingress, tree root infestation, ageing infrastructure.

3. Once the report has been compiled a decision can be made by the Asset Manager or client on the course of action required. An estimate will be provided by SA Pipe Relining to reline the pipeline or carry out sectional repairs, ultimately restoring the aging infrastructure to equal or better than original condition.

4. The liners are prepared and pulled into place. **The result**; a creation of a smooth, seamless pipeline or sectional repair resulting in a 'pipe within a pipe' capable of withstanding pressure and root penetration – due to the seamless and joinless structure and a smooth bore internal where calcification can no longer occur as deposits will not stick to the inner walls of the new epoxy barrier lined pipe.

Solutions

Millions of linear meters of pipelines have been restored worldwide using this simple but effective technology. SA Pipe Relining has both the experience, equipment and advanced technical knowledge to meet your specific needs. The applications for relining are endless and regardless of the depth or height of the pipeline or corrosive nature of the environment, SA Pipe Relining has a solution at hand.

The benefits of Nu Flow Relining Technology;

- No destruction, minimal disturbance to finished surfaces
- No inconvenience or disruption to your routine
- No traffic tie ups, expensive road excavation and/or damage to paths or landscaping
- Significant cost savings over traditional pipeline replacement methods
- CIPP restores structural integrity of existing pipelines and repairs ageing infrastructure
- Prevents root intrusion in sewer mains or stormwater and stops leaks
- Prevents water ingress, egress
- Increases flow capacity
- Can perform sectional repairs or mainline relines
- Has the ability to reline junctions and tees in one action creating sealed joins
- Provides an option to drain replacement
- Product Guarantee
  View our website for product / installation guarantees and conditions

SEWER BLOCKAGE/OBSTRUCTION

TYPICAL SEWER ROOT INFESTATION

CRACKED/LEAKING INTERNAL PIPE WALL STRUCTURE

BEFORE: DAMAGED PVC PIPE BENEATH MAJOR RESIDENTIAL EXTENSION

AFTER: SMOOTH INTERNAL PIPE WALL LINING COVERING ALL PIPE DAMAGE

- Prevents root intrusion in sewer mains and stops leaks

Cured-in-place epoxy lining moulds to the internal diameter of the host pipe creating a structural seamless 'pipe within a pipe'. This seamless technology prevents any further root intrusion and eliminates water ingress or leakages from the sewer mains by lining over any cracks, misaligned joins or separation of pipe.

- Increases Flow Capacity

Newly relined pipelines increase flow capacity due to the new smooth inner lining of the pipelines created by the NU Flow Process. The smoother internal lining prevents calcification deposits from adhering to the inner wall of the pipeline allowing unimpeded flow while minimising the potential of future blockages. This is particularly applicable on Cast Iron, Clay or Concrete Pipes.

- No destruction

Using systemised methods SA Pipe Relining is capable of relining pipelines through inspection openings or any form of access to the pipeline. Liners are launched from access points and pulled into position. This approach is non destructive, quick and effective. Mass trench excavation and backfilling, structural damage, re landscaping, traffic tie ups, hazards and environmental damage are non existent in most cases.

- No inconvenience or disruption to your routine

The relining process is non intrusive and clean allowing your routine to be maintained with minimal disruption and maximum cleanliness.

- No traffic tie ups, expensive road excavation or damage to paths or landscaping

Disruptions to traffic and costly expenses involved in excavations, replacement of pipelines and reinstatement of affected areas as well as the environmental impact associated with this process are costly, time consuming, a nuisance and dangerous. Consider SA Pipe Relining's expertise in this area when contemplating the alternatives.

- Significant cost savings over traditional pipeline replacement methods

The lining process reduces the need for costly excavations and replacement of existing pipelines in conjunction with all the other associated costs involved in that process. Consider the following requirements when evaluating a *traditional drain* replacement.

SA Pipe Relining Method

- Decide on sectional repair or entire main drain reline
- Manufacture liners
- Launch liners
- Allow cure time and test
- Job completed

No mess, no fuss, non intrusive, non destructive, no environmental impact!

Traditional Method

- Council approval or Water Authority approval required
- Concrete cutting, slab or footing cutting, paver removal and/or landscape destruction imminent
- Excavation of existing drain, usually with a backhoe commences, generally a messy, very intrusive and dangerous process
- Existing drain removed
- No use of facilities until new drain has been laid and connected
- New drain installed connecting to existing connections
- Drains require testing
- Water authority inspection required
- Trenches backfilled and compacted
- Concrete and or paving to be reinstated
- Landscape to be reinstated
- Site cleanup
- Job completed

This is an expensive and lengthy process extending into days or weeks as well as very intrusive and destructive.

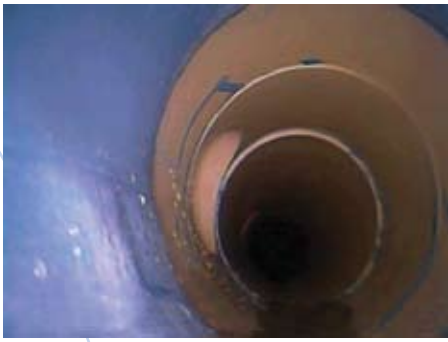
Typical Relining Process

DAMAGE AND VOID IN HORIZONTAL PIPELINE

LINER IS MANUFACTURED AND RESIN IMPREGNATED

LINER INSERTED INTO HOST PIPE
NOTE - VOID IS BRIDGED WITHOUT DISTORTION

LINER IS INFLATED IN POSITION FORMING A NEW 'PIPE WITHIN A PIPE'



TYPICAL RELINING OF DAMAGED 100mm x 65mm 45° JUNCTION BENEATH NEW ENSUITE BATHROOM

- **CIPP restores structural integrity of existing pipelines and repairs ageing infrastructure**

The lining process enhances the structural strength of the host pipe creating a 'pipe within a pipe'. The CIPP liner withstands corrosive environments and the test of time. The perfect solution to ageing infrastructure eliminating the need for costly excavation. Liners can be customised to suit many specific needs.

- **Can perform sectional repairs or mainline relines**

SA Pipe Relining's versatility extends from sectional repairs to mainline relines. Completing 1m long sectional repairs is not uncommon as the need to reline entire lengths of pipeline in order to complete the repair is not necessary. In high flow and demand situations such as mainline repairs, SA Pipe Relining can use a patented Flow-Through system, allowing the pipeline contents to flow through the lining as it is positioned in place and begins to cure. This technology allows the pipeline to remain in use as the lining is installed.

- **Has the ability to reline Junctions and Tees in one action creating sealed joins**

This unique method of CIPP lining goes where no other lining system goes. Its capabilities are endless. The ability to line around Junctions, Tee pieces, bends, changes in direction, changes in pipe size, gullies and floor traps without any joins is just one of the product's many advantages. No longer is there a need to core out junctions and insert top hats or the like. The lining process ensures that the Junctions, Tee pieces and bends are all formed in one process, ensuring no joins and perfect pressure tight fittings are formed.

- **Provides a realistic option to drain replacement**

The patented Nu Flow Process enables SA Pipe Relining to provide its customers and clients with an option. Lost productivity on workshop floors, downtime created in factories, businesses and the like through disturbances associated with pipeline replacements, continual blockages or obstructions are no longer necessary with the implementation of the lining process.

ASSORTED HIGH VELOCITY/PRESSURE DRAIN CLEANING NOZZLES AND TOOLS

High Velocity & Pressure Hydro-jetting

SA Pipe Relining has the capability of hydro-jetting bathroom drains through to Mainline drains. With various techniques and equipment SA Pipe Relining is fully prepared to combat a wide variety of situations.

Closed Circuit Television (CCTV) Inspections

SA Pipe Relining has the ability to CCTV inspect and record pipeline internals from 40mm to 600mm diameter, with the most technologically advanced products on the market. Using state of the art technology to capture DVD quality video and digital photos of the pipeline inspection and standard internationally recognised formats (such as Wincan), Asset Managers can be quickly and precisely informed of the condition of their assets. Variable light intensity controls, self levelling camera heads and locating sondes allow extreme versatility and capabilities. Colour DVD inspections and electronic or hardcopy reporting coupled with snapshot photos of problem areas completes an informative and detailed reporting package making the decision process and next step that much easier.

CCTV CAMERAS AND DVD RECORDING EQUIPMENT

Our equipment includes:

Mini Jet Blaster

The Mini Jet Blaster is a German engineered high pressure cleaner capable of delivering 11lpm at 2500psi. Ideal for all internal drains and small diameter pipelines the Mini Jet Blaster penetrates and clears obstructions. The Mini Jet Blaster is capable of cleaning pipelines from 20mm to 100mm.

Razorback Jetter

At 5000psi and 24lpm the Razorback Hydro-jetter is fully self contained making it ideal for tight access locations such as undercroft carparks, commercial buildings and strata complexes. Used for both stormwater and sewer its high pressure and complete arrangement of nozzles enable roots and obstructions to be quickly and efficiently cleared. A unique oscillating rear firing nozzle allows for intensive internal pipeline cleaning and de-scouring. The Razorback is generally used on 100mm to 300mm sewer and stormwater pipelines.

Terminator Hydrojet

Specifically designed and custom built to be the most versatile and capable Hydrojet rig on the market, the Terminator Hydrojet has the capability of hydro-jetting pipelines from 100mm to 600mm in diameter. Using various techniques and equipment the Terminator Hydrojet can combat a wide variety of situations.

Boasting 3045psi pressure, in excess of 100lpm with an array of nozzles and tools the Terminator Hydrojet has the capability to clear pipeline obstructions. 120m of 22mm high pressure hose mounted on a hydraulic variable speed reel ensures that pipeline internals are thoroughly and uniformly cleaned and de-scaled while obstructions are removed.

Nozzles and Tools

SA Pipe Relining has a comprehensive assortment of nozzles and tools ready to work on some of the most difficult pipeline obstructions and internal pipeline cleaning requirements.

100mm - 300mm 50CC MOTORISED HYDRAULIC CUTTER

OHS&W and the Environment

SA Pipe Relining considers OHS&W and the Environment to rate equally with all other business facets. SA Pipe Relining continues to exceed industry requirements with CCF certification and Environmental Accreditation, assuring your assets are in safe hands and the environment is being correctly managed. SA Pipe Relining holds $20,000,000 public liability insurance, can provide Safe Work Method Statements and Environmental Checklist Forms, and is fully equipped with all safety requirements.

SA Pipe Relining only uses environmentally friendly products and is conscious of today's ever changing environment.

For a copy of SA Pipe Relining OHS&W Policy and Environmental Policy please email **enquiries@sapiperelining.com.au** or view our website **www.sapiperelining.com.au**

*The Nu Flow Potable Water Lining has been developed and is currently in the process of receiving approval by various State and National authorities.

It is anticipated that the Nu Flow Potable Pressure Water Lining will be available for commercial use within six months.

THE RELINING PROCESS IS CAPABLE OF ADHEREING TO ALL PIPE PRODUCTS.

Pipe Relining Cross Sectional View

INDICATES THE ABILITY TO RELINE MULTIPLE CHANGES IN DIRECTION IN THE ONE PROCESS

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SA Pipe Relining is the South Australian licensee of Nu Flow Technologies 2000 Pty Ltd

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