

# PRESSURE PIPE REPAIR & RELINING SOLUTIONS



**nuflow**  
reline repair renew

**Redline**

# Our Redline technology

**Nuflow are the specialists in trenchless pipe repair and relining. We provide a simple, practical, cost effective solution to stormwater, sewerage and potable pipe repairs.**

## The Redline process for drainage repairs:

1. The corroded pipes are blasted to prepare them for rehabilitation.
2. Shots of epoxy are moved through the entire pipe system using high pressure air.
3. The end result is a Redline barrier between the pipe system and the product that flows through them.



# Redline

**Nuflow is covering Australia with the latest in epoxy pipe lining technology designed for pressure pipes from 12mm to 300mm. Redline is a simple and highly effective cured-in-place pipe restoration technique that completely coats the inside of your problem pipes, you will never have to worry about pipe corrosion or pinhole water leaks again.**

The process prevents future water leaks while it protects you from lead, asbestos and other contaminants leached from your pipes into your water. Carry out your pipe repair without any excavation.

Applicable for use in host pipes which are designed to hold pressure (including Air, Fire Suppression, Gas and HVAC systems), consisting of any material including metal, iron, steel, plastic, concrete, and fiberglass in diameters ranging from 12mm to 300mm.

## How it Works

In drinking water lines, epoxy is blown into cleaned pipes, forming a safe, evenly coated barrier between pipe walls and water. Epoxy lining is a permanent, preventative solution to leaks and breaks, blockages, prevents corrosion, water damage and mold growth, and maintains water flow. Redline epoxy acts as a permanent barrier to heavy metals leaching in drinking water lines from metal piping systems.

## The process

- Corroded pipes are sand blasted to prepare for rehabilitation.
- Shots of epoxy are moved through the entire piping system.
- End result is a Redline barrier between your pipes and your water.

## Benefits

- Safe and Durable - Redline is AS4020 approved
- Cost Effective - pipe lining is as much as 50 percent less expensive than traditional pipe replacement costs
- Minimal Downtime - the Redline process takes a fraction of the time of traditional repipe methods.
- Minimal Disruption and Displacement - Nuflow's pipe restoration process requires no displacement of occupants.
- Versatility in Applications - Redline can be performed in any pipe in any building, structure or environment.

## Technical Specifications

- In pressurized pipe systems, Redline withstands the psi rate of the host pipe
- Will tolerate and negotiate multiple 45 and 90 degree bends
- Will negotiate all junctions, and changes in pipe diameter

Redline can be used in potable water pipes as well as hot water recirculation systems, fire sprinkler and fire suppression systems, chiller lines and HVAC systems.

# Case study: Allawah Street

**Before Redline, the pipes capacity was reduced to as low as 35% due to the reduced bore size caused by corrosion. After Redline, the pipes were opened up to more than 95% of their original capacity.**



## **Location**

Allawah Street, Bundall, Queensland

## **Work Performed**

At only 18 years old, the entire network of Galvanised Steel and Copper in this property, was in poor condition. Nuflow Redlined all the potable water pipes, from the meter to the internal pipe system within the house. This included 15mm galvanised external and 15mm copper hot and cold internal pipework.

## **Why were Nuflow Called?**

The initial call came because the water was coming out of the taps dirty and very slowly. Before Redline, the pipes capacity was reduced to as low as 35% due to the reduced bore size caused by corrosion. After Redline, the pipes were opened up to more than 95% of their original capacity. With a complete Redline over the inside of the pipe, there will be no more leeching of metals and rust, no more bad taste in the water, no more internal corrosion.

## **Alternatives**

There was only one alternative to pipes in as poor a condition as these – to excavate and re-pipe. This was a newly renovated home so the costly repairs would have been heart-breaking to the homeowner and would have involved digging up the gardens, rear patio, removing internal walls and damaging existing surfaces in the bathrooms, kitchen and laundry. Traditional pipe replacement would require the house to be vacant for at least a few days while works were carried out.

## **Degree of Difficulty**

What made this a complicated job, was the task of cleaning the galvanised pipework. This was laborious and time consuming, but essential to a successful outcome.

## **The End Result**

The pipes were restored to 95% of their original capacity giving our customer improved flow from their fixtures. With no more leeching of rust from the line, we gave our customer better tasting water. The best benefit of all, the owners saved thousands of dollars.

**For more examples of work we have done visit [nuflowtech.com.au](http://nuflowtech.com.au).**

# Case study: Church St, Bellbowrie

**With a leaking service under the slab in the kitchen, without Redline the owners would have had to destroy the tiled area and excavate the kitchen floor to access the leaking pipe.**

## Location

Church Street, Bellbowrie, Queensland



## Work Performed

Nuflow cleaned and Redlined all the internal 15mm copper hot water pipes as there was a leaking service contained under the slab in the kitchen.

## Why were Nuflow Called?

With a leaking service under the slab in the kitchen, the owners did not want to touch the tiled area and excavate the kitchen floor as the floor tiling was a major feature of the house. It would have been extremely difficult to re-run the water pipes as the house had exposed ceiling beams with no ceiling space furthermore the kitchen sink was in an island bench. To add to their problems all the pipe work was contained under the floor slab and within the walls. With a complete Redline of the pipework, there will be no more leaks or internal corrosion. Water will never come in contact with the host pipe again.

## Alternatives

With the entire pipe system located in the floor and walls, the only alternative would have been to excavate the kitchen floor, this would have destroyed the tiled surface. This was not an option for the owners. To reroute the water services the owners would have to accept externally reticulated pipework and relocation of the kitchen sink.

## Degree of Difficulty

What made this a complicated job, was the entire pipe system was located in the floor slab and walls and the pipework was all in 15mm copper pipe. The owners also remained in the residence while the work was undertaken.

## The End Result

The life of the pipes has been extended exponentially and there will be no more leaks the flow rates at each fixture was also increased after the cleaning and Redline processes.

**For more examples of work we have done visit [nuflowtech.com.au](http://nuflowtech.com.au).**

# Case study: Ewingar Court

**15mm copper potable water pipes were Redlined extending the life of the pipes exponentially and there will be no more water damage flooding caused by pin hole leaks in deteriorated pipes.**



## Location

Ewingar Court, Helensvale, Queensland

## Work Performed

Nuflow Redlined all the internal 15mm copper pipes in this detached granny flat. Both the hot and cold water systems were completed over 2 days with no excavation or digging into walls.

## Benefits

There was no disruption to the tenants of the flat, which was a relief to the owners who were concerned they may miss out on rent. The flow rate was improved by nearly 200% in most outlets, and no longer will the shower rose (head) block with calcium build-up.

The life of the pipes has been extended exponentially and there will be no more water damage caused by pin hole leaks in deteriorated pipes.

## Alternatives

There were two alternatives. The first, to continue to repair the issues as they came up. This would be cheaper in the short term as long as no property was damaged each time the flat flooded. Long term, the dollars would add up very quickly. The second alternative, was to re-pipe the entire house which would have meant replacing plasterboard, re-painting, possibly re-tiling. It definitely would have required the tenants to vacate the property for the duration of works.

## Results

No displacement to the occupants. All work was performed from existing access points causing no disturbance, mess or the need for reinstatement of floors or walls. The works were completed well within the allocated budget and time schedules.

**For more examples of work we have done visit [nuflowtech.com.au](http://nuflowtech.com.au).**

# Case study: Fort Drum, New York

**A job like this demonstrates how Nu Flow's patented epoxy coating is not limited to lining copper piping systems, but can also rehabilitate large fire suppression systems without destruction.**



## **Location**

U.S. Army Corps, Jefferson County, New York

## **Work Performed**

2000 meters of iron pipes were Redlined. There were six bays, each with its own fire-suppression station. The aqueous film-forming foam (AFFF) distribution system consisted of 420 open sprinkler heads on six deluge systems. Pinhole leaks were occurring along with failing joints and causing failures and false alarms.

## **Benefits**

Nuflow's solution saved the customer from the cost and logistics of repairing and replacing the entire system by using existing sprinkler head connection points to access and reline the existing pipes. Nuflow sandblasted the pipes to get rid of any buildup.

Despite the snow and freezing temperatures, Nuflow was able to restore the piping system with their patented epoxy coatings by making sure air temperatures were high enough in the hangars' rafters where most work was performed.

## **Results**

Nuflow successfully completed a pipe lining project at a military base without interrupting operations. Nuflow restored a fire-suppression deluge system using Nuflow's patented epoxy lining solution, demonstrating the range of systems where it is applicable.

**For more examples of work we have done visit [nuflowtech.com.au](http://nuflowtech.com.au).**

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# About us

**Nuflow are the specialists in trenchless pipe repair and relining. We provide a simple, practical, cost effective solution to stormwater, sewerage and potable pipe repairs.**

Nuflow is covering Australia with the latest in epoxy pipe lining technology designed for pressure pipes from 12mm to 300mm. Redline is a simple and highly effective cured-in-place pipe restoration technique that completely coats the inside of your problem pipes, you will never have to worry about pipe corrosion or pinhole water leaks again.

## **How we started**

Nuflow Technologies in Australia and New Zealand was started by Ed Ahern. With over 34 years experience in the plumbing and pipeline industry, Ed Ahern has successfully owned and operated almost 20 companies. During this time, Ed has developed extensive experience within the construction plumbing, pipeline and civil drainage sectors, and has completed numerous projects throughout Australia.

Ed experimented with an Australian relining system, while using the system he discovered its limitations and set out to find a better system or develop one that was much more versatile. This led him to Nuflow Technologies, a Canadian company claiming to repair damaged pipes, bends, traps and even junctions. Ed was impressed with the technology and negotiated a deal to service the entire South East Asia area.

## **Manufacturing**

All our products are Australian made. We manufacture all resins and liners and employ many local engineers to help us design some of the unique tools of our niche trade. Our full time manufacturing team is dedicated to speed, efficiency and quality product and delivery to our customers. They pride themselves on their ability to come up with a solution to any problem we throw at them.

In 2007, our manufacturing operation received certification to AS/NZ 9001:2000 Quality Management Systems. We have since had several independent audits, and passed each one comfortably.

## **Licensed Installers**

Nuflow Technologies has expanded organically; a network of many family-owned and operated businesses that have come together through the same vision - that 'there must be a better way' than to excavate. Every Installer undergoes extensive training, and twice a year come together to share insights on the latest techniques and ideas. We now have nearly forty licensed installers across Australia and New Zealand.

# nuflow Redline

internal pipe coating

## Extend your pipe life by up to 50 Years

- Improve the quality of your drinking water
- Environmentally-friendly
- Comply with potable water standards globally

## No Leaks, No Stress No Fuss, Guaranteed



BEFORE Redline



AFTER Redline





# Visit us

**Find us online at [nuflowtech.com.au](http://nuflowtech.com.au) or at 20 Central Park Avenue in Ashmore.**

You are welcome to visit our show room to view the display of products and services we have on offer. This is open Monday through to Friday from 9am to 4pm.

We also offer live demonstrations of our trenchless pipe reline and repair products and services, for more information visit our website or call us.

# Talk to us

**For a simple, practical, cost effective solution to stormwater, sewerage and potable pipe repairs talk to us on 1800 NUFLOW (683 569).**

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