

nuflow
WE FIX PIPES



RED QUATTRO CORP
Certified Mechanical & Plumbing Contractor

TRENCHLESS PIPE REHABILITATION

FOR EDUCATION PLUMBING SYSTEMS

Sewer, Storm, Drain, Waste and Vent Rehabilitation
Trenchless Pipe Lining
Video Inspection and Pipe Cleaning



ABOUT US

NuFlow is a leader in pipe lining solutions. Our independently owned and operated NuFlow Certified Contractors are highly trained professionals, equipped to renew the worst piping situations imaginable.

We provide a rigorous training and education program, ensuring that our Contractors are knowledgeable in our techniques, processes, and equipment. We also offer continuing education courses and online tutorials to ensure our installation partners are always up to date on the latest techniques and technologies.

With 25 years in the industry, and more than 200 Certified Contractors around the globe, NuFlow is the pipe lining brand you can trust. We offer the tools and experience to support every market sector from residential to commercial to industrial.



THE EDUCATION SPECIALISTS

We understand the unique circumstances that academic institutions face:

- **Keeping students and staff happy**
- **Maintaining your property**
- **Upholding health and safety standards**
- **Managing budget expenditures**
- **Avoiding disruption during the school year**

We get it, so we make getting started easy. After a thorough inspection, our team of pipe experts will present you with a custom cleaning and rehabilitation plan to extend the life of your pipes.



DON'T WAIT, INVESTIGATE!

Avoid costly pipeline failures with an advanced inspection.

Pipes are often the last thing we think about when it comes to our schools and places of work. As many of the buildings that we work in age, plumbing problems become more and more likely. Our pipe repair specialists conduct thorough inspections of your pipe infrastructure to identify any potential problem areas.

Understanding the condition of your pipes will give you a solid foundation for planning for the future. Based on these findings, you can begin investing in your property's pipes with a proactive pipe inspection, maintenance, and a restoration plan.

Watch out for red flags to help you avoid costly pipeline failures down the road!

- Repeat sewer stoppages
- Slow drains in showers and sinks
- Unpleasant odors
- Gurgling drains
- Slow flushing toilets
- Persistent insect or rodent issues

When you see these signs, don't wait! The cost will be far greater when it's an emergency. Minimize property damage by calling for an inspection.



THE EXPERIENCE, TECHNIQUES, AND TECHNOLOGY TO GET THINGS WORKING LIKE NEW.

As a NuFlow Certified Contractor we have the experience and the technology to help you understand the condition of your sewer and drain infrastructure and provide solutions to get things working like new.



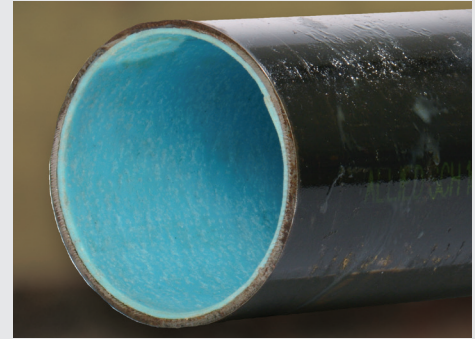
Inspection & Diagnostics

The first step towards resolving a pipe problem is clearly identifying the issue. Our team of pipe repair specialists use camera inspections to make sure we have a clear understanding of the situation and use the right solution for the job. After inspection, our team will create a customized plan to clean and restore your pipes.



Cleaning

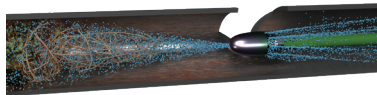
Different pipes and different problems require different cleaning methods, and we are experts in all of them. We utilize best-in-class mechanical and hydro jet cleaning technologies to restore pipe systems to like-new condition, for better flow and a longer life.



Pipe Lining

Pipe lining is a safe and proven way to rehabilitate leaking or corroded pipes. Typically, it is much faster, doesn't require tearing open many walls and can be more affordable than pipe replacement. Our cured-in-place process uses existing pipe access points, leaving you with a pipe-within-a-pipe, without the destruction, time, hassle, and cost of pipe replacement.

HOW PIPE LINING WORKS



1. Blocked or root-intruded pipes are cleaned with tools and processes appropriate to the situation.



2. A resin-saturated liner is pulled into place through existing access points, and an internal bladder is inflated, pressing the epoxy against the pipe wall.



3. The resin cures in a few short hours, then the bladder is deflated and removed, leaving behind a clean, seamless "pipe within a pipe."



LINING VS. PIPE REPLACEMENT

When faced with persistent plumbing issues, you have two options: replace the pipes or restore them with a safe and proven technology. Pipe restoration can get everything working like new - fast.

Less Invasive

You don't have to destroy your property to fix your pipes. Lining minimizes damage to walls, floors and surrounding areas because lining is handled through cleanouts or other existing access points. If a sewer pipe is under concrete or pavement, there's no need to jackhammer it up since our pipe lining technology slides right into the existing pipe.

More Affordable

Rehabilitating sewer pipes using lining can cost considerably less than what conventional pipe replacement does. There is little structural modification involved because there is no need to take out walls or tear up the street or lawn. Minimal exterior digging also reduces clean-up costs, as well as the labor costs needed to complete the job. In addition, when using lining, there are minimal reconstruction costs to be taken into consideration.

Faster

Typically, we are in and out in about half the time of pipe replacement. Without the need to dig or spend time repairing walls, floors and ceilings, the procedure of pipe lining is more time efficient than complex conventional pipe replacement. And because lining is developed to solve the problem for the long-term, it helps prevent problems such as corrosion and leaks from reoccurring and reduces future inconvenience for your school.

Long Lasting

It's faster, less invasive and less expensive, but it is projected to last just as long. We've been lining pipe for more than 25 years. Our lining technologies are projected to last more than 50 years, about the same as you'd expect with conventional pipe replacement, in many cases longer than pipe replacement. You can get all the benefits of lining and still get the same life out of your pipes.

FREQUENTLY ASKED QUESTIONS

Where can NuFlow be used?

The technology can be applied in any section of drain, sewer, rainwater or utility pipework in either a vertical, horizontal or a mix of both orientations. The liners can be installed within any type of host pipe, including metals, plastics, ceramics, and organics.

What size pipes can NuFlow be used for?

NuFlow's technology can be used on pipework with diameters between 1 1/2" to 12" or more depending on a variety of factors. Any length of pipe is manageable, but typically lengths of pipe that can be lined at once vary depending on diameter and intricacy of the piping system, for example, a length of approx. 150 ft is able to be rehabilitated at one time for a 4" diameter host pipe.

How does NuFlow manage bends, connections or branches?

NuFlow's technology is designed with a flexible and contouring bladder. Once installed, the bladder within the liner is inflated pushing the resin saturated felt around the contours of the host pipe, making a mechanical bond with its host. NuFlow also offers specific liners for a variety of fitting configurations including Wye and Tee connections.

How much access is needed to rehabilitate a pipe line?

The access points, cleanouts, and manholes we utilize are typically already present.

How soon can the section of pipe be returned to service after lining?

Once the bladder is removed, the cured liner is inspected as part of quality assurance. The section of pipe can be brought back into service within 10 minutes of successfully completing this process.

Is pipe lining safe?

NuFlow's products are made from a variety of safe and non-toxic materials, including epoxy resins and vinyl esters that do not contain harmful chemicals like VOCs or styrene. These materials offer high durability, strength and chemical resistance, making them effective and environmentally friendly. Our resins meet or exceed the physical properties set forth by the American Standard of Testing and Materials (ASTM) as well as other national & international standards for CIPP rehabilitation.

Why choose a NuFlow contractor?

NuFlow Certified Contractors have been rigorously trained and certified by NuFlow Technologies. This includes a thorough initial contractor training, an online continuing education series, a multitude of unique industry specific educational intensives, as well as the ongoing support and quality assurance practices from the NuFlow team. Periodic re-certification is a requirement for all NuFlow Certified Contractors.

What international organizations have certified your products and processes?

NuFlow systems products meet the American Society for Testing and Materials (ASTM) 1216 and F1743 standards and certified under the International Association of Plumbing & the Mechanical Officials (IAPMO) and International Code Council (ICC).

The Nuflow Quality Management System Manufacturing location at 106 McMaster Ave Ajax Ontario Canada is certified under International Organization for Standardization (ISO) 9001.

SUCCESS STORIES

REVITALIZING AN AGING ELEMENTARY SCHOOL'S PLUMBING INFRASTRUCTURE

An aging elementary school facing recurring plumbing issues underwent a remarkable transformation. Partnering with a NuFlow Certified Contractor, they embraced innovative trenchless pipe lining techniques to revitalize over 700 feet of cast iron pipes and a significant reduction in maintenance calls.

Built in the 1970s, an elementary school in Frankston, Texas, found itself grappling with persistent plumbing issues stemming from its aging infrastructure. Despite recognizing the need for regular maintenance, the school had hesitated due to the potential cost, destruction, and inconvenience associated with a complete pipe overhaul.

The school's maintenance staff had been relying on a local plumbing company for periodic maintenance and drain cleaning, a service requested an average of two times per month. It was during this ongoing collaboration that the plumbing company became a NuFlow Certified Contractor. Eager to explore innovative solutions, they initiated a conversation with the school's head of maintenance about the benefits of trenchless pipe lining.

The contractor conducted a comprehensive camera inspection to evaluate the extent of the damage within the existing cast iron pipes. The inspection revealed widespread issues, including channel rot, multiple cracks, decay, and corrosion. Armed with these findings, they presented a detailed project proposal to the school's board of directors, which was swiftly approved.

The project kicked off with the application of NuDrain cured-in-place-pipe (CIPP) lining to restore both the main line and lateral connections of the plumbing system. To maximize efficiency and accelerate the production timeline, the NuFlow contractor made a strategic investment in a NuCure Cold Cure UV lining system. The introduction of this UV system significantly reduced curing times, enabling them to line a greater length of pipes daily. This newfound momentum propelled the project to completion a few days ahead of schedule.

Upon completion, the dedicated team had successfully rehabilitated over 700 feet of 3-inch, 4-inch, and 6-inch cast iron pipes within the school's infrastructure. They managed to finish the project well in advance of the return of students and staff for the new academic year. Remarkably, since the project's conclusion, there have been no reported instances of drain clogs, a testament to the effectiveness of the trenchless pipe lining solution implemented.



UNIVERSITY SAVES OVER A MILLION DOLLARS WITH PIPE LINING

Foul odors and ongoing leaks were causing complaints in the dorms of a 150-year-old university. The school needed a solution that would take care of the problems without displacing over 1000 on-campus students.

Students at a well-known eastern university were complaining about ongoing plumbing issues in their student housing. For years, the facilities team struggled with the aging pipes in their on-campus dormitories. Foul odor and ongoing leaks in buildings that were in constant use forced the repair crew to be reactive. Every time a problem arose, they would quickly patch or replace the pipes, only to see the issues arise again and again. With over 1000 students living in the four buildings, they faced a constant struggle to maintain the plumbing infrastructure while school was in session... but they were losing the battle.

The university had plans to eventually renovate the dorms, but it was not in the master financial plan for at least another ten years. The maintenance staff knew they needed to come up with a long-term solution to get ahead of the problem. They looked into a full pipe replacement, but the quote came in over \$2,000,000. And, in order to keep the housing available during the school year, replacement would have to be executed in a multi-phase plan that would take years to complete. They were looking for an alternative option when they met a NuFlow Certified Contractor.

The contractor educated the facilities manager about pipe lining – a non-destructive alternative to pipe replacement that lasts just as long with minimal hassle. The solution proved to be a breakthrough, well beyond what the maintenance teams could have imagined. After a thorough inspection and presentation to the management team, the NuFlow Certified Contractor estimated the job at less than half of the price of pipe replacement.

The team cleaned and lined 32 drain stacks, which included over 5,000 ft of cast iron pipe. The entire project was done in one month over the school's winter break. When the students returned to campus there were no more complaints. Under half the cost and a fraction of the projected time, you do not have to be a math major to know that they made the right decision.



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