



- **Liquid Nitrogen Pipe Freezing**
- **Portable CO2 Pipe Freezing Equipment**

Setting the Standard:

- ***Excellence***
- ***Responsive***
- ***Competitive***
- ***Experienced***

There's a failed weld downstream on a sixteen-inch stainless steel line at the base of a wood pulp vat. And the vat's ten stories high.

You have to install and bring on-line an additional trading floor of a major bank...without interrupting world commodity trading.

You need to extend a fire protection system without interrupting existing fire protection for a large building.

All of these are real situations. And they're all challenges that Pipe Freezing Systems turned into success stories.

If you need to repair a pipe system without draining the lines and emptying the system, we've got the technology to do it. For routine maintenance, planned repairs, and emergencies, look to Pipe Freezing Systems. This brochure highlights the process we use and the services we provide. For more information, visit us at: www.pipefreezingsystems.com

The Advantages of Pipe Freezing

The pipe freezing advantages are clear:

There's no need to shut down and/or drain an entire system of large volumes of fluid.

It's environmentally friendly—eliminating potential hazards caused by draining liquids. Also, technicians can accurately control the application of the liquid nitrogen to the site.

It shortens system downtime.

It's cost effective. With pipe freezing, there's no loss of expensive liquids. The process also reduces labor and material costs for repairs and alterations.

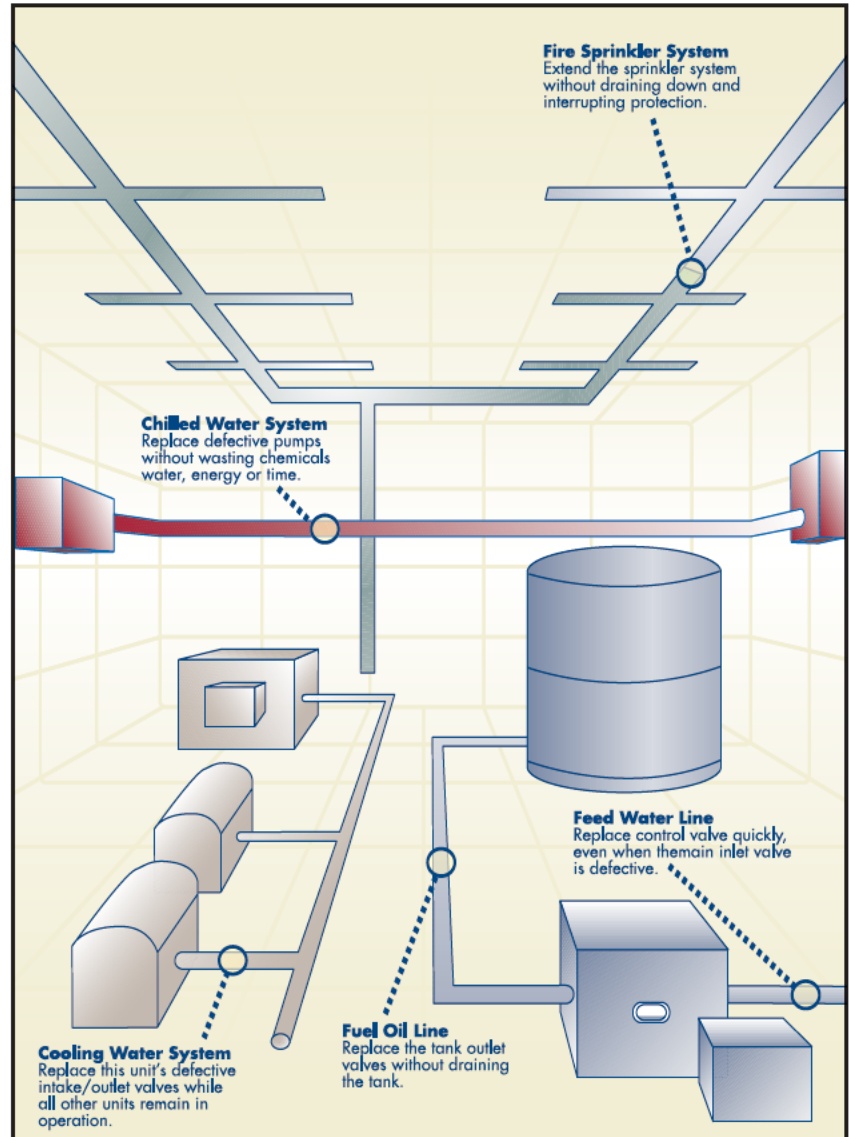


How Pipe Freezing Works

Pipe freezing causes a temporary line stop using liquid nitrogen. This forms a plug (or plugs) to allow work on the pipe without emptying the system. The process is ideal for:

- *Extending existing pipelines,*
- *Inserting tees or tap-offs,*
- *Repairing leaking lines, or*
- *Replacing valves or other fittings.*

To freeze the pipe, we fit a customized freezing jacket around the pipe. This sleeve wraps around the pipe upstream of the section to be modified, and it is carefully sealed and secured to the pipe. We then slowly add liquid nitrogen to the sleeve, allowing the vapors to cool the pipe before the liquid nitrogen contacts it.



Our Services

Pipe Freezing Systems provides services for planned maintenance and emergencies. We meet with the plant engineer to determine the scope of the project and perform a site survey to ensure the process is feasible and safe. During the survey, we consider the nature of the pipe material, how easily and completely the liquid will freeze, and the conditions surrounding the repair site.

We continually research and test the ability of products and materials to freeze. We have successfully frozen the following:

Materials

Mild steel
Galvanized steel
Stainless steel
Ductile iron
Cast iron
Polyvinyl chloride plastic
Fiber glass
Pyrex glass
Copper pipe and tube
Rubber
Concrete-lined iron pipe
Tile

Products

Water
Hot water
Glycol-treated water
Fuel oil
Caustic soda
Ammonia liquor
Corn syrup
Acids
Fertilizer chemicals
Brake fluid
Heavy water
Sewage
Brine solution

Setting the Standard

In addition to the most advanced pipe freezing technology, count on Pipe Freezing Systems, Inc. for:

- **Excellence.** Our record is 100% without damage to piping or product. Regardless of the pipe or product, we apply the same degree of diligence and safety.
- **Instant response.** We're available 24 hours a day; 7 days a week—including holidays and weekends.
- **Competitive prices.** You get a fair deal. We charge by the job, not by the hour, and we get right to work. In fact, the owner of our company is on-site at most jobs.
- **Experience.** We've established a reputation as the most experienced and best-qualified provider of pipe freezing services. We're known and respected throughout the world.
- **Honesty and integrity.** If pipe freezing isn't your best option, we'll tell you so. And we'll help you look for alternatives.
- **Research and development.** Pipe Freezing Systems conducts ongoing research and development to test and gather data from around the world on cryogenic uses and effects.

Rely on our experience, customer service, and quick response.

Rely on Pipe Freezing Systems, Inc.

To Learn More

To learn more about Pipe Freezing Systems or to request a demonstration of the pipe freezing process, please contact us:



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