



*Specialist in on-line repair
of steam & chemical leaks*

(314) 846-6657

Econo-Seal.com

24 HOUR SERVICE



Who Are We?

Founded in January 1996, Econo Seal specializes in on-line, under-pressure leak sealing through individualized, engineered solutions.

We save our customers millions every year by preventing costly shut downs.

We are committed to operating with integrity. We never try to sell you expensive repairs that you don't need. With Econo Seal, you get the right repair, right on time. Over the past 25 years, Econo Seal has built a reputation for our rapid response, quick turnaround time and exceptional quality. We are proud to say that many of the most prestigious companies in our region are loyal Econo Seal customers.

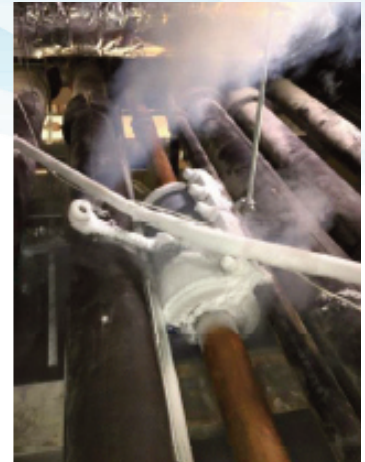
We know that, for our customers, staying on line is a priority. Econo Seal helps maximize up-time by stopping your leaks on-line and under pressure. This saves your company time, energy and money. It also goes a long way in reducing emission and noise levels, improving plant safety and reducing erosion damage as well.



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What do we do?

- On-Line Leak Sealing
- Line Freezing
- Line Stopping
- Hot Tapping
- Carbon Fiber Repair
- Industrial Coatings



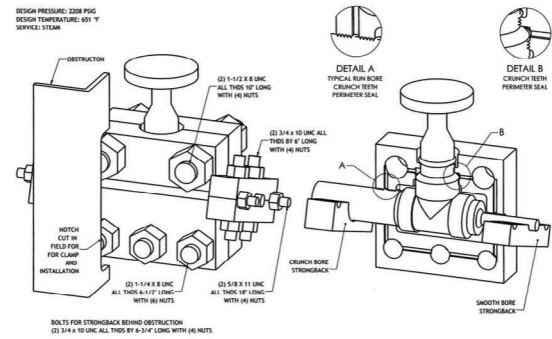
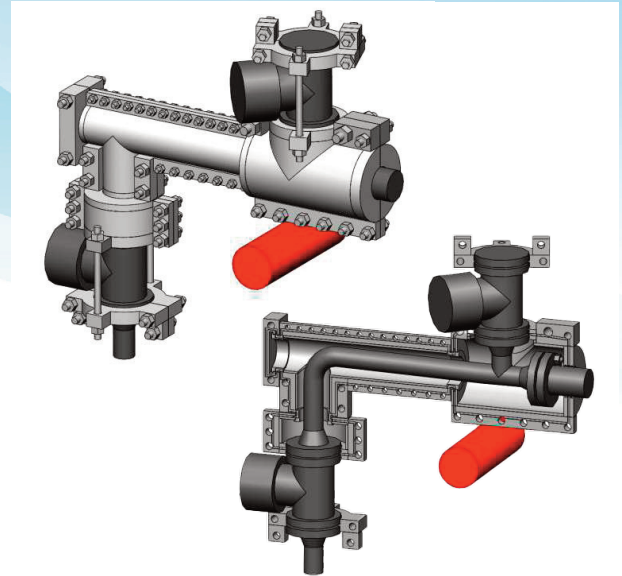
Safety

- No lost-time incidents in 25 years!
- Utilize Operational Risk Management to safely complete projects
- Perform Job Safety Analyses prior to starting work
- Member: ISN, Avetta, Purchasing Services Co.



Engineering

- Clamps designed to ASME Pressure Vessel Code Standards
- 24/7/365 engineering support
- Over 40 years of experience
- Clamps designed with cost in mind
- Design packages, including drawings, calculations and dimensional data available upon request



Valve Packing Injection

Situation:

Deteriorated valve packing allowed steam to leak out of the stem of this high pressure super heater spray valve

Pressure: 3,800PSIG

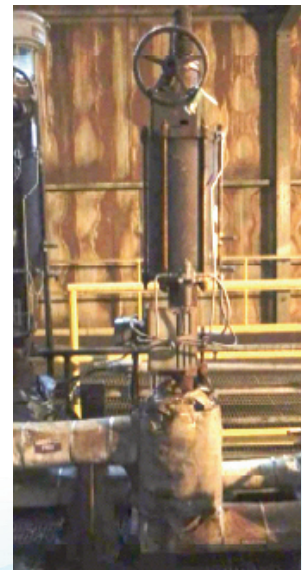
Temperature: 750F

Service: Steam



Solution:

Drill into the packing gland, install an injection valve and inject with sealant



Engineered Clamp

Situation:

A faulty steam trap allowed water hammer to exert forces 5-10 times greater than normal on this system, causing a flange gasket failure on this valve.

Pressure:

~100PSIG

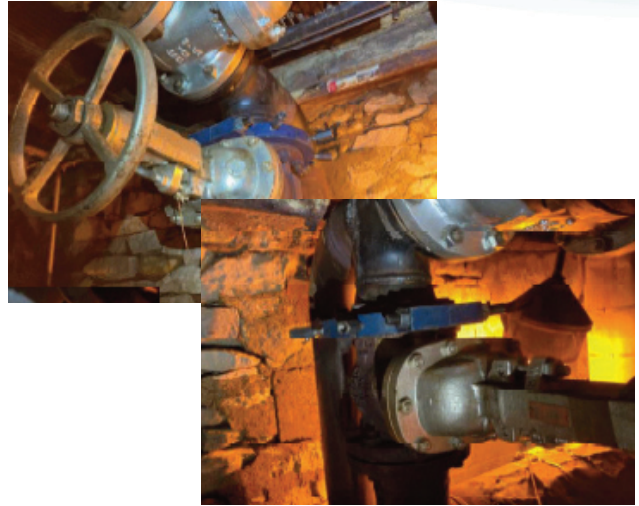
Temperature:

~225F



Solution:

Install an engineered flange clamp, with injection valves. Inject with sealant.



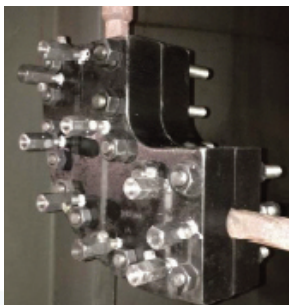
Plug Enclosure Clamp



Valve Enclosure



Flanged Connection Enclosure



90 Enclosure



Weld Enclosure With Strongback



T Enclosure With Strongback



Coupling Enclosure

Wire Wrap



Wire wraps are another option for flange gasket leak repair. This solution involves wrapping wire around the gap between two flanges. Injection valves are either drilled and tapped into the flange or installed on special injection studs that can be used to replace existing studs.

The wire forms a barrier that prevents sealant from escaping, allowing us to inject the space between the old gasket and the wire, essentially forming a new gasket.



Peening



Peening is a versatile leak sealing technique that utilizes an air chisel with a custom tip, used to fold metal into gaps and create a seal.

This can be a stand alone repair or can be used to contain a sealant injection.



Peening is an effective technique but due to the fact that it is destructive in nature, it is generally considered as a last resort.

Line Kill



Line kills are typically performed on valves that no longer seat properly and leak-by. The process requires sealant to be injected upstream of the closed valve. The pressure of the system forces the sealant up against the valve and seals the leak, eliminating leak-by and stopping flow or "killing" the line.



Injection can be done downstream of the valve in certain circumstances. In this case, the sealant builds up behind the valve, the valve is then cracked, allowing the sealant to travel up stream. Lastly, the valve is closed and the line is killed.

Line Freezing

Line freezing, or freeze plugging, is a non-intrusive method of isolating sections of pipe. With a boiling point of -320.4F, liquid nitrogen makes quick work of most line freezing jobs. The extreme cold forms an ice plug inside the pipe but it also temporarily narrows the pipe in the center, creating a slight hourglass shape that locks the plug in place.

Due to the change in shape, line freezing creates a strong plug that has been shown to withstand upwards of 10,000PSI.

Most types of piping can be successfully frozen.



Exaggerated depiction of how LN2 temporarily changes the shape of pipe, locking the ice plug in place

Hot Tapping



Econo Seal has the equipment and experience to perform hot tapping services on pipes, flanges, tanks and pressurized vessels, without interrupting your system or losing product.

We are a full service hot tapping contractor, capable of handling all aspects of the job from start to finish.

Econo Seal can also tap into lines that cannot be welded, utilizing bolt-on fittings.

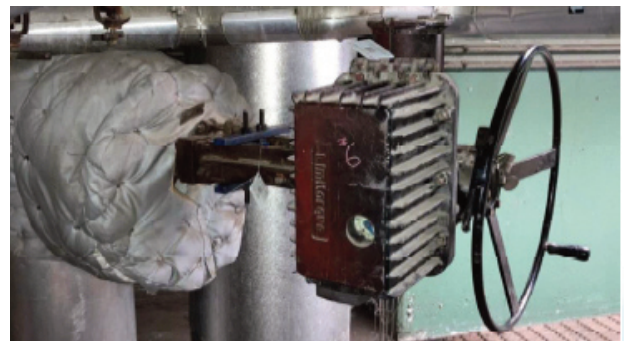
We are capable of tapping a wide range of piping materials, other than carbon steel.



Stem Gag



Stem gags work by locking the stem into place, preventing a valve from operating. This service is typically requested when certain valve components need to be serviced but the system cannot be taken offline.



CIPP Lining

Econo Seal has been keeping a wide variety of customers up and running for over 28 years. Through a strategic partnership, we are proud to offer CIPP (cured-in-place) pipe relining to our heavy industrial, commercial and industrial customers. As always, we are offering a niche service to save you downtime, excavation costs and most importantly, money versus conventional replacement. We excel at the small to medium jobs the big players aren't necessarily interested in. We offer both structural and non structural repairs and can extend the life of your infrastructure for years to come. The beauty of this service is using the existing pipe as a form for the new lining. This is a "trenchless" repair that has a multitude of advantages, greatly reducing your carbon footprint by reutilizing the existing failed pipe. Damage to your roads, foundations and flatwork is eliminated. We offer you every step from identifying the problem, to installing the liner.



Relining Sewer Line

Relining an 18" sewer line after robotically removing an errant rebar intrusion from a construction mishap.



Relining Overhead Line

12" overhead line in the basement of a historic hospital. This line was 100 ft and rehabilitated with the CIPP process.

How it Works

Your old pipe is robotically inspected with a detailed report as to its condition. Any obstructions, buildup and debris are removed through mechanical means, robotic means or hydro jet cleaning. An appropriate composite liner for your application is prepared with one of several resins best suited to your application. The liner is forced (shot) into your pipe by various means depending on the application. The liner is expanded to your existing pipe's inside diameter and then cured by the method required by its composition: heat, chemical crosslinking or ultraviolet light.



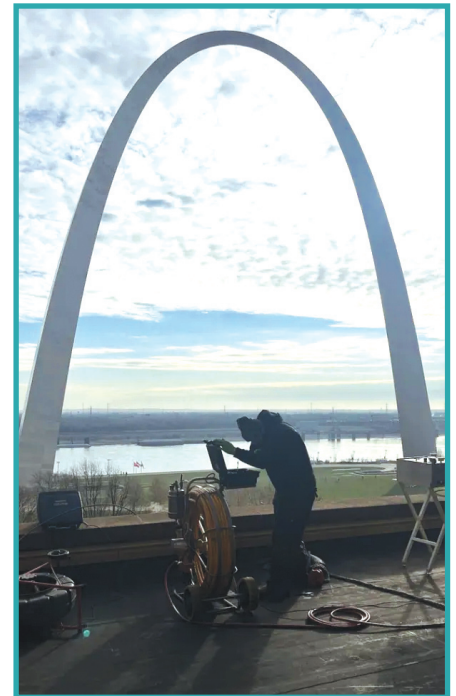
Relining Cast Iron Drain Line

Relining of a decades old cast iron drain line that had cracked and failed at a historic St. Louis hotel.



Relining Steam Inversion Line

4" steam inversion line in a residential basement. Cast iron to PVC transition.



Roof Drain Restoration

Restoration of roof drains at a hotel, a simple solution to a major problem...

