

**SNAP-TITE®
CULVERT LINING
SYSTEMS
FOR RAILROADS**



The problem.



Class I, Regional, Shortline and Transit rails are facing a critical problem. Culverts installed 75-100 years ago are failing at an alarming rate nationwide. Thousands of corrugated metal culverts are so significantly rusted that a danger of sink holes, track washout or flooding exists. Concrete and concrete box culverts have cracked or pulled apart at the joints creating similar scenarios. Conventional repair methods of the past have been to dig and replace the failed pipe or jack and bore new ones. There is now a dash to find a solution that is economically feasible, quick and avoids track closures and loss of revenue.

The no-dig trenchless solution.

SnapTite®

Today there's an economical alternative to traditional methods with field-tested benefits, proving that rehabilitation is a better solution – with the Snap-Tite® culvert lining system.

Using solid-wall high-density polyethylene (HDPE), a Snap-Tite® system actually outperforms the pipe it replaces. HDPE's smooth interior surface delivers better throughput – and with the inclusion of a gasket assures a watertight seal at all joints, meeting ASTM D3212 requirements.

Snap-Tite®'s patented male/female machining at each end of the HDPE allows it to be 'snapped' together, piece by piece, and pushed into the

Snap-Tite® Oval Pipe

Since one-third of existing culverts are arched, Snap-Tite® came up with a solution: oval pipe. It has the same benefits as smooth-wall HDPE Snap-Tite®, yet made for a better fit into an existing arched culvert.



full length of the existing pipe. Traditional Snap-Tite is available in lengths from 2 to 50 feet long and is available for existing culverts with diameters from 8 to 84 inches. Additionally, Snap-Tite has alternative pipe rehabilitation options for culverts up to 150 inches. The annular space between the host pipe and the new Snap-Tite® pipe is filled with a low-density cellular grout, which fills in any voids between the sub ballast and culvert, delivering a truly 'rehabbed' culvert.

Snap-Tite® is easy to install; nearly all the culvert renewal can be done off track with minimum disturbance to the right of way, without track closure. Most jobs can be completed with a backhoe, shovels, a come-along and chains. Because there is no need for specialized equipment we can train your crew.



Snap-Tite offers large diameter pipe options.



THE BOTTOM LINE...

Snap-Tite® is the better solution for three key reasons:

1. The rehabilitated culvert will have the same (or greater) flow than the existing culvert. This is a true 'rehab' since the space between the host pipe and the Snap-Tite® pipe, as well as the space between the pipe and track, is filled with cellular grout.
2. Installation is easier, safer and less disruptive to traffic and property. Existing crew can be used without the need for special training or specialized equipment.
3. The joints are watertight and secure, and the HDPE delivers a nearly indefinitely life.

A Snap-Tite® installation.

Faster. Easier. Safer.

Although every culvert project is different depending on location of the culvert and condition of materials in place, almost any culvert can be rehabbed using the Snap-Tite® Culvert Lining System.



An example of two side-by-side, typical deteriorated culverts close to failure, potentially leading to track collapse and danger to the railroad.



After the culvert is excavated and prepared for Snap-Tite rehab, companies often high rail to deliver the pipe to the project site.



The first piece of Snap-Tite HDPE is lowered into position and inserted into the host pipe.



A gasket is installed on the next piece of pipe, assuring a watertight seal when connected.



The second piece of pipe is lowered into position, and lined up with the first piece.



Using chains and pressure from the excavator, the two pieces of pipe are 'snapped' together. The process is repeated until connected sections of Snap-Tite are pushed through the entire length of the culvert.



Different length PVC pipe that will deliver the grout flow are installed, and both ends are sealed using concrete bulkheads



The low density cellular grout that will be pumped into the pipe is prepared.



The grout is pumped into the entire length of the pipe, filling in all voids between the new and host pipe, and the areas between the pipe and roadway.



The totally rehabbed Snap-Tite culvert. Nearly all the work was completed off-track in the culvert itself.

No track closure or loss of revenue.

Make the connection! For more information visit www.culvert-rehab.com or call us at

1-800-CULVERT

