

THE TITE LINER® SYSTEM

Pressure pipe rehabilitation systems for municipal water and wastewater applications



Much of the world's pressure pipe infrastructure is long past its design life or is in need of repair. Complete replacement of these pipes using conventional dig and replace solutions can be time consuming, costly (up to 3 times the cost of insitu rehabilitation) and very disruptive to traffic, the general public and the environment. These problems can easily be avoided by choosing the Tite Liner® system—a close-fit, high-density polyethylene (HDPE) solution for pipe renewal.

The Tite Liner® system is ideal for the renewal of distribution and pressure mains. The Tite Liner® system installation cuts down on digging and disruption while helping water companies and municipalities extend the life of their existing infrastructure. The continuous HDPE liner is installed with a close fit against the inner wall of the host pipe after temporarily reducing the liner diameter using our proprietary roller reduction processes.

The HDPE liner isolates the flow stream from the host pipe wall, eliminating internal corrosion and improves flow capacity by up to 50 percent by maximizing flow characteristics and reducing annular space and friction.

The Tite Liner® system provides solutions for your pressurized pipe system

- Nominal diameter ranges from 4 to 54 inches and higher
- Produces a continuous, close-fitting structural and/or interactive solution
- Drinking water approved
- Can navigate minor bends or miters
- Utilizes high-performance PE 4710
- Fast and cost-effective installation
- Extends the life of existing assets; 20-50 year design life
- The Tite Liner® system allows for the longest possible installation methods with lowest possible installation forces



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The Tite Liner® system utilizes PE 4710 and offers a cost-effective and dynamic solution compared with historical materials

- Engineered liner provides a custom fit and performance while minimizing material cost
- Improves performance properties including long-term pressure rating, tensile strength and toughness
- Increased resistance to slow crack growth propagation
- Allows for the use of standard IPS or DIPS connections
- Can be repaired or modified for future needs
- Close-fit eliminates the need for grouting

Testing and Certification

The following third-party tests have been performed on the Tite Liner® pipeline renewal system:

Industry Standard	Application
ASTM D 3035	Pressure and non-pressure fluids, municipal and industrial water, sewer and culvert, rehabilitation, geothermal, heat transfer
ASTM F 714	
AWWA C901	Water service and distribution
AWWA C906	Water distribution and transmission
FM1613	Underground fire main
NSF-61 & 14	Potable water
AASHTO M-326	Sewer and culvert sliplining
CSA B137.1	Potable water

Sample Municipal Installations

Village of Valley Forge, PA Sanitary sewer

- 18,000lf of 30in
- DR 32.5 and DR 26

Newport News, VA Potable water

- 1,100lf of 30in Tite Liner®
- DR 32.5

City of Richardson, TX Sanitary sewer

- 4,000lf of 12in
- DR 26

City of Manhattan, NY Potable water

- 10,000lf of 48in
- DR 40

City of Victoria, BC, Canada Potable water

- 11,000lf of 24in
- DR 32.5

City of Colorado Springs, CO Raw water

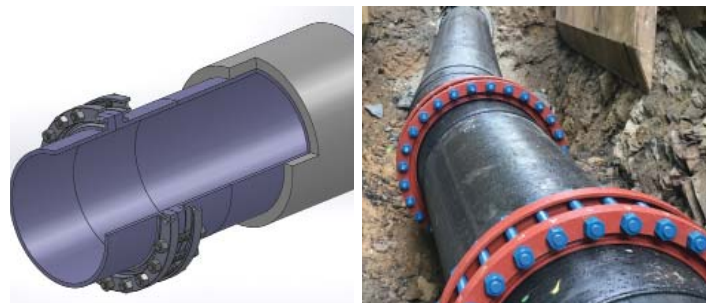
- 2,000lf of 22in and 20in
- DR 26

The Tite Liner® System Technical Envelope

Diameter (in)	Standard DR	Pressure Rating (psi)	Min Wall (in)
6	9.00	252	0.736
8	9.00	252	0.958
10	9.00	252	1.194
12	9.00	252	1.417
14	11.00	202	1.273
16	11.00	202	1.455
18	13.50	161	1.333
20	13.50	161	1.481
22	15.50	161	1.419
24	15.50	161	1.548
26	17.00	126	1.529
28	17.00	126	1.647
30	17.00	126	1.765
32	17.00	126	1.882
34	17.00	126	2.000
36	17.00	126	2.118
42	21.00	101	2.000
48	21.00	101	2.286
54	21.00	101	2.571

Values above are guidelines only and may not apply in all situations.

End Connections and Fittings



The Tite Liner® system is suitable to connect to all types of piping systems (DIP, CS, PCCP, AC, HDD, etc). Fittings, valves and miters can be accommodated with HDPE, DI, CI or other materials and bolt directly to the Tite Liner® system.



United Pipeline Systems, Inc.
135 Turner Drive
Durango, CO 81303
970.259.0354
www.unitedpipeline.com
ups@unitedpipeline.com