



BULLET LINER SYSTEM™

BY ASOE

Flexible Liner System for the Trenchless Rehabilitation of Pressure Pipes

CPM Pipeline's **BulletLiner System™** is Flexible Fabric Reinforced Pipe (FFRP), with a basic three-step installation procedure: 1. Fold **BulletLiner System™** into a U-shape; 2. Pull the liner through the host pipes; and 3. Expand the liner.

BulletLiner System™ Classification Series:

■ W SERIES

Water and wastewater main pipes and other types of water pressure pipes at normal temperature.

■ O SERIES

Oil pipes onshore or offshore.

■ G SERIES

Gas pipes onshore or offshore.

■ H SERIES

Municipal heat systems; resisting temperatures up to 230° F – the first solution worldwide to rehabilitate hot water pipes.

In addition to liner systems, CPM Pipelines offers complete solutions including couplings to connect **BulletLiner System™** with host pipes.

BulletLiner System™ solution is a semi-structural Class 3 pipe rehabilitation. There is no connection between the pipe and liner so the liner works independently from the pipe. The slightly rigid liner maintains a round shape inside the pipe even without pressure. **BulletLiner System™** is flexible and can easily be pulled from 45 or 90 degrees bends with a 5D radius.



Corrosion resistant



Quick installation



Holds high pressure internally

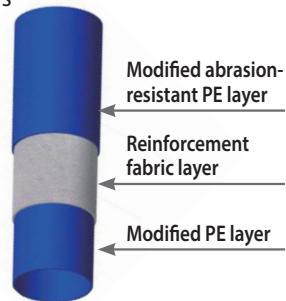
For more information on how CPM can help you contact us at info@cpmpipelines.com

Technical Specifications



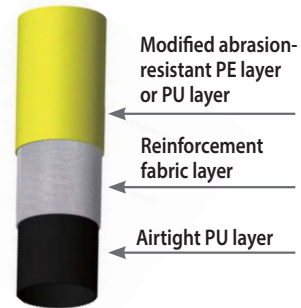
W SERIES

- Nominal ID of host pipes: 2-inch to 48-inch
- Maximum length of each installation: up to 13,000 feet
- Maximum operating pressure: 150 psi - 600 psi
- Maximum bursting pressure: 450 psi - 1800 psi
- Installation mode: Pull in U-shape Liners
- Raw materials: high tenacity fabric reinforcement layer, abrasion-resistant PE cover, PE tube (NSF61 certified)
- Abrasion resistance (DIN53516): .4-inches
- Temperature of media: -40° F to 167° F
- Wall thickness: 0.236 - 0.315 inches
- Trenchless solution type: Semi-structural pipe rehabilitation
- Pulling speed: up to 1,312-feet per hour
- Service life duration: 50 years



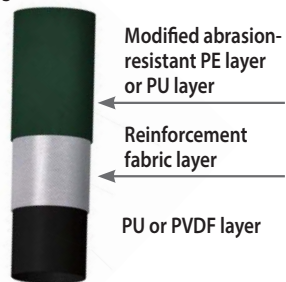
G SERIES

- Nominal ID of host pipes: 2-inch to 48-inch
- Maximum length of each installation: up to 13,000 feet
- Maximum operating pressure: 150 psi - 600 psi
- Maximum bursting pressure: 450 psi - 1800 psi
- Installation mode: Pull in U-shape Liners
- Raw materials: high tenacity fabric reinforcement layer, abrasion-resistant PE cover, airtight PU tube
- Abrasion resistance (DIN53516): .4-inches
- Temperature of media: -40° F to 167° F
- Wall thickness: 0.236 - 0.315 inches
- Trenchless solution type: Semi-structural pipe rehabilitation
- Pulling speed: up to 1,312-feet per hour
- Service life duration: 40 years



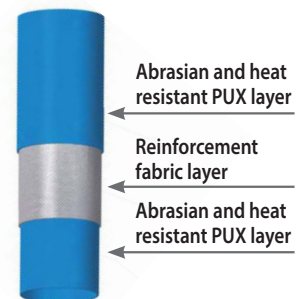
O SERIES

- Nominal ID of host pipes: 2-inch to 48-inch
- Maximum length of each installation: up to 13,000 feet
- Maximum operating pressure: 150 psi - 600 psi
- Maximum bursting pressure: 450 psi - 1800psi
- Installation mode: Pull in U-shape Liners
- Raw materials: high tenacity fabric reinforcement layer, abrasion-resistant PE cover, oil-resistant PU tube or heat-resistant PVDF tube
- Abrasion resistance (DIN53516): .4-inches
- Temperature of media: -40° F to 167° F
- Wall thickness: 0.236 - 0.315 inches
- Trenchless solution type: Semi-structural pipe rehabilitation
- Pulling speed: up to 1,312-feet per hour
- Service life duration: 40 years



H SERIES

- Nominal ID of host pipes: 2-inch to 48-inch
- Maximum length of each installation: up to 13,000 feet
- Maximum operating pressure: 150psi - 600 psi
- Maximum bursting pressure: 450 psi - 1800 psi
- Installation mode: Pull in U-shape Liners
- Raw materials: high tenacity fabric reinforcement layer, heat-resistant PUX cover and PUX tube
- Abrasion resistance (DIN53516): .4-inches
- Temperature of media: -40° F to 230°F
- Wall thickness: 0.236 - 0.315 inches
- Trenchless solution type: Semi-structural pipe rehabilitation
- Pulling speed: up to 1,312-feet per hour
- Service life duration: 40 years



Couplings for Trenchless Pipe Rehabilitation



BulletLiner System™ couplings are comprised of three parts:

- **Outer flange tube (A):**
Made of carbon steel coated with epoxy powder coating to attach couplings to pipes.
- **Expansion ferrule (B):**
Made of carbon steel, and prevents the lining from slipping and abrasion.
- **Inner pushing tube (C):**
Made of carbon steel or stainless steel according to media transferred. Fastens liners to the flange tube.



Dimensions: DN50 – DN1200
2-inch to 48-inch



FEATURES

- Reliable design ensures the liner is locked tightly to couplings with no leaking.
- No loss in water flow because the inside diameter of inner pushing tubes are equal to the liners.
- No friction loss at the connecting point of liners and inner pushing tube.

