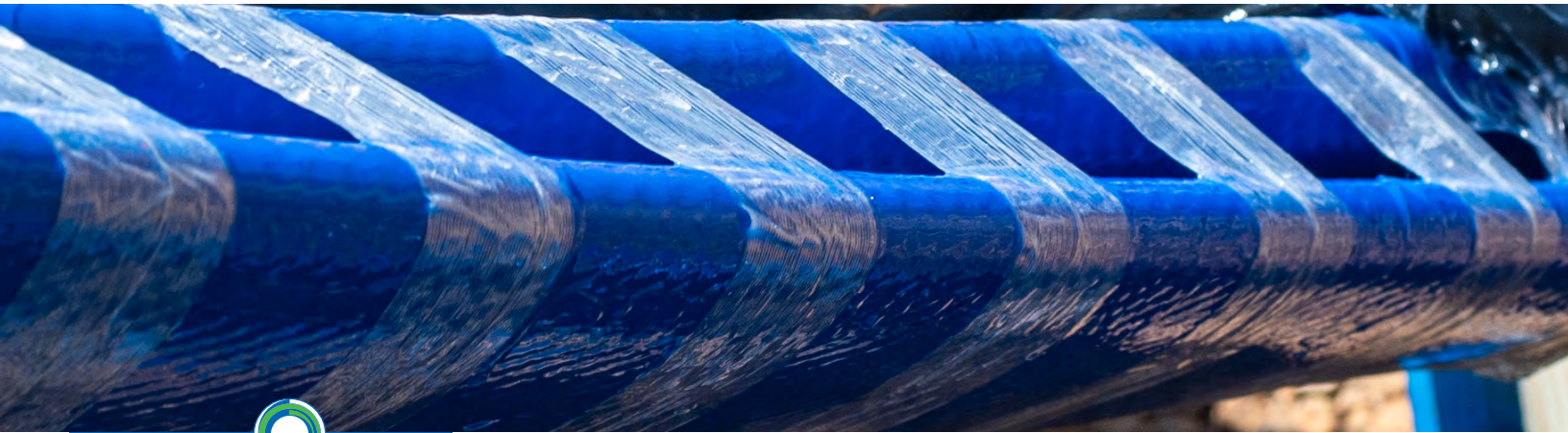


BULLETLINER SYSTEM® Trenchless Rehabilitation



BulletLiner System® W-Series is a AWWA Class III semi-structural liner for the trenchless rehabilitation of water and wastewater pressure pipes. It works independently from the host pipe or in conjunction with the host pipe dependent up-on the specific project design parameters and pressure requirements. The flexibility of the liner allows it to be pulled through 45-degree bends at up to 1,312-feet per hour via two excavation pits where it's connected to the host pipe with corrosion-protected trenchless termination fittings. Manufactured with a modified abrasion-resistant PE or PU outer layer, reinforced fabric layer, and an airtight PU or PVDF inner layer.

- Close-fit design provides renewal with minimal restriction of internal diameter.
- 5-year material warranty; 50-year design life.



W-Series Flexible Fabric Reinforced Pipe (FFRP) for the Trenchless Rehabilitation of Water and Wastewater Pressure Pipes

Technical Specifications (OD Project Specific)

Nominal Host Pipe ID (inches)	Independent Operating Pressure (PSI)	BulletLiner System® Wall Thickness (inches)	Tensile Strength (tons)	Weight (lbs./foot)
4	232	0.20	18	0.91
5	232	0.20	26	0.99
6	145	0.20	27	1.48
8	145	0.24	28	1.65
10	145	0.24	49	2.69
11	145	0.24	54	2.96
12	145	0.24	58	2.69
14	145	0.24	63	3.49
16	145	0.23	75	4.27
18	145	0.24	105	5.17
18*	232	0.24	119	5.17
20	145	0.26	117	6.11
20*	232	0.26	129	6.11
24	87	0.31	152	7.19
28	87	0.31	180	9.18
30	87	0.31	195	9.58
30*	145	0.31	195	9.58
32	87	0.31	212	10.21
32*	145	0.31	212	10.21
32**	232	0.31	212	10.21
36	87	0.31	249	10.88
36*	145	0.31	249	10.88
36**	145	0.31	249	10.88
40	87	0.31	230	12.83
40*	145	0.31	230	12.83
40**	145	0.31	230	12.83
48	87	0.31	250	16.13
48*	87	0.31	250	16.13
48**	145	0.31	250	16.13

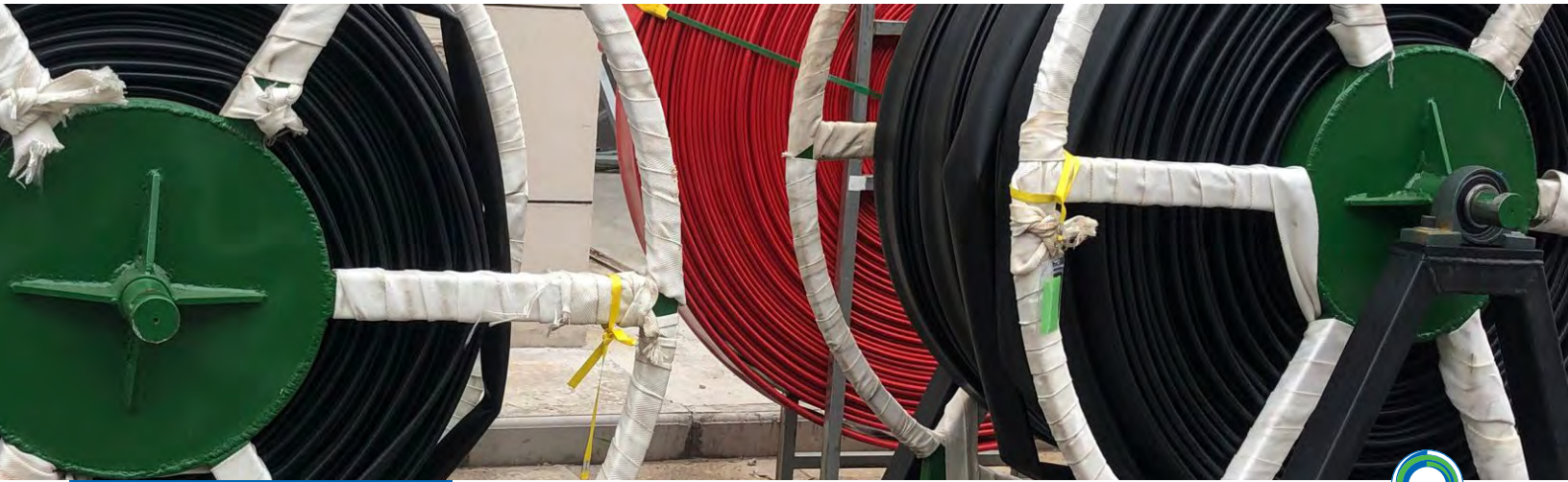
Standard BulletLiner System® W-Series FFRP is manufactured with polyester warp and weft.

*Manufactured with polyester warp and Aramid weft.

**Manufactured with Aramid warp and weft.



BULLETLINER SYSTEM® Trenchless Rehabilitation



BulletLiner System® H-Series is a AWWA Class III semi-structural liner for the trenchless rehabilitation of high temperature pressure pipelines, resisting temperatures up to 230° F. It works independently from the host pipe or in conjunction with the host pipe dependent up-on the specific project design parameters and pressure requirements. The flexibility of the liner allows it to be pulled through 45-degree bends at up to 1,312-feet per hour via two excavation pits where it's connected to the host pipe with corrosion-protected trenchless termination fittings. NSF 61 certified.

- Close-fit design provides renewal with minimal restriction of internal diameter.
- 5-year material warranty; 50-year design life.



H-Series Flexible Fabric Reinforced Pipe (FFRP) for the Trenchless Rehabilitation of High Temperature Pressure Pipes

Technical Specifications (OD Project Specific)

Nominal Host Pipe ID (inches)	Independent Operating Pressure (PSI)	BulletLiner System® Wall Thickness (inches)	Tensile Strength (tons)	Weight (lbs./foot)
2	305	0.15	9	1.4
2.5	305	0.18	11	1.7
3	305	0.15	13	2.4
4	305	0.24	19	4.0
5	203	0.24	22	4.4
6	203	0.24	29	5.1
10	145	0.24	58	8.3
12	145	0.24	108	12.0
14	145	0.28	108	13.9
16	145	0.26	83	14.0
16*	232	0.26	118	14.0
18	232	0.26	131	17.0
20	145	0.26	129	20.1
20*	232	0.28	142	20.1
24	87	0.35	168	23.6
28	87	0.35	199	30.1
30	145	0.35	215	31.4
32	87	0.35	234	33.5
32*	145	0.35	234	33.0

*Indicate higher pressure manufactured using Kevlar Weft.



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BULLETLINER SYSTEM® Trenchless Rehabilitation



BulletLiner System® O-Series is a semi-structural liner for the trenchless rehabilitation of oil pressure pipes. It works independently from the host pipe or in conjunction with the host pipe dependent up-on the specific project design parameters and pressure requirements. The flexibility of the liner allows it to be pulled through 45-degree bends at up to 1,312-feet per hour via two excavation pits where it's connected to the host pipe with corrosion-protected trenchless termination fittings. Manufactured with a modified abrasion-resistant PE or PU outer layer, reinforced fabric layer, and an airtight PU or PVDF inner layer.

- Close-fit design provides renewal with minimal restriction of internal diameter.
- 5-year material warranty; 50-year design life.

O-Series Flexible Fabric Reinforced Pipe (FFRP) for the Trenchless Rehabilitation of Oil Pressure Pipes

Technical Specifications (OD Project Specific)

Nominal Host Pipe ID (inches)	Independent Operating Pressure (PSI)	BulletLiner System® Wall Thickness (inches)	Tensile Strength (tons)	Weight (lbs./foot)
3	145 or 232	0.14	3.0	0.67
4	145 or 232	0.20	3.8	1.07
6	145 or 232	0.20	5.7	1.74
8	145 or 232	0.24	7.7	2.68
10	145 or 232	0.24	9.7	3.35
12	145	0.24	11.5	4.03
12*	232	0.24	11.5	4.03
16	145	0.28	15.9	4.27
16 *	232	0.28	15.9	4.27
18	145	0.28	17.3	5.17
18*	232	0.28	17.3	5.17
20	145	0.25	19.3	6.11
20*	232	0.25	19.3	6.11
24	87	0.31	22.8	7.19
24*	145	0.31	22.8	7.19
28	87	0.31	27.3	9.18
28*	145	0.31	27.3	9.18
30	87	0.31	29.1	9.58
30*	145	0.31	29.1	9.58
32	87	0.31	30.7	10.21
32*	145	0.31	30.7	10.21
36	87	0.31	34.8	10.89
40*	58	0.31	38.6	12.83
48*	72	0.31	45.5	16.12

Standard BulletLiner System® O-Series FFRP is manufactured with polyester warp and weft.

*Includes Kevlar Weft reinforcement materials for higher operating pressure.



BULLETLINER SYSTEM[®] Trenchless Rehabilitation



BulletLiner System[®] G-Series is a semi-structural liner for the trenchless rehabilitation of gas pressure pipes. It works independently from the host pipe or in conjunction with the host pipe dependent up-on the specific project design parameters and pressure requirements. The flexibility of the liner allows it to be pulled through 45-degree bends at up to 1,312-feet per hour via two excavation pits where it's connected to the host pipe with corrosion-protected trenchless termination fittings. Manufactured with a modified abrasion-resistant PE or PU outer layer, reinforced fabric layer, and an airtight PU or PVDF inner layer.

- Close-fit design provides renewal with minimal restriction of internal diameter.
- 5-year material warranty; 50-year design life.

G-Series Flexible Fabric Reinforced Pipe (FFRP) for the Trenchless Rehabilitation of Gas Pressure Pipes

Technical Specifications (OD Project Specific)

Nominal Host Pipe ID (inches)	Independent Operating Pressure (PSI)	BulletLiner System [®] Wall Thickness (inches)	Tensile Strength (tons)	Weight (lbs./foot)
3	232	0.14	12	0.67
4	232	0.20	17	1.07
6	232	0.20	23	1.74
8	232	0.24	28	2.68
10	232	0.24	51	3.35
12	232	0.24	54	4.03
12*	232	0.24	54	4.03
16	145	0.28	105	4.27
16 *	232	0.28	126	4.27
18*	145	0.28	105	5.17
18	232	0.28	119	5.17
20	145	0.25	117	6.11
20*	232	0.25	129	6.11
24	87	0.31	152	7.19
24*	145	0.31	152	7.19
28	87	0.31	180	9.18
28*	145	0.31	180	9.18
30	87	0.31	195	9.58
30*	145	0.31	195	9.58
32	87	0.31	212	10.21
32*	145	0.31	212	10.21
36	87	0.31	249	10.89
40*	58	0.31	230	12.83
48*	72	0.31	250	16.12

Standard BulletLiner System[®] G-Series FFRP is manufactured with polyester warp and weft.

*Includes Kevlar Weft reinforcement materials for higher operating pressure.

