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Pipes, Liners and Inverts

Stanton Bonna offers a versatile range of liners, inverts and pipes in glass reinforced plastic (GRP), used for the complete or partial renovation of man entry sewers and as new pipelines.

For the renovation sector, the product is available in circular and non-circular profiles.

Applications

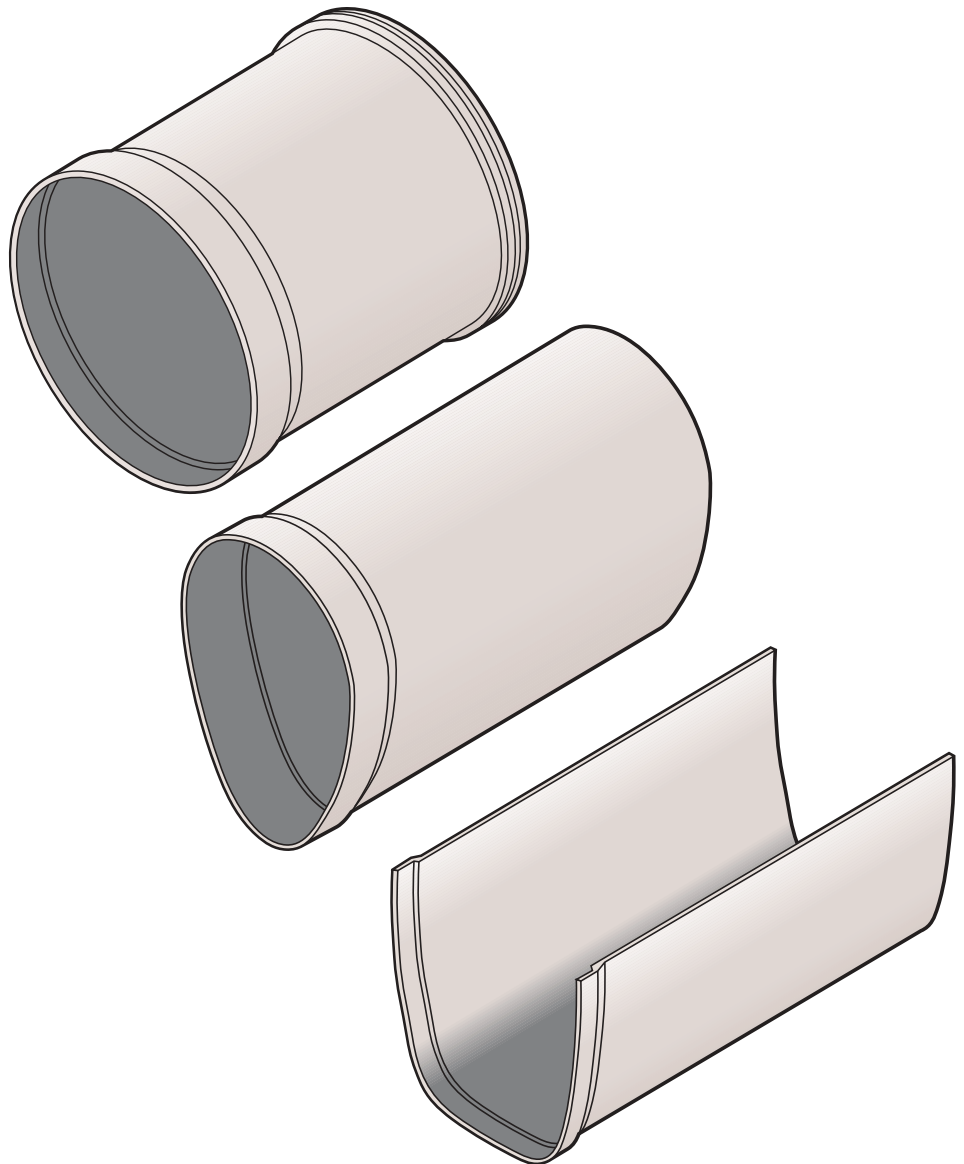
- The diversity of the GRP range allows the products to be used for a wide range of applications.
- Full liners are typically used for the renovation of damaged sewers to improve structural integrity, leak tightness and hydraulic capacity.
- Inverts are used to partially line sewers to improve leak tightness and hydraulic performance.
- Pipes are used for new pipelines for transporting sewage, aggressive ground water or industrial effluent.

Major Benefits

- A comprehensive range of shapes, sizes, joints and lengths are offered.
- The hi-tec gel coat gives excellent resistance to corrosion and abrasion and provides a smooth bore with minimal frictional loss.
- Products have a high strength/weight ratio.
- Products are designed and manufactured to be scheme specific to ensure optimum performance.

Dimensions and Shapes

- Liners and gravity pipes can be produced to any curved profile up to 2m maximum axis and in discrete lengths up to 6m.
- Pressure pipes are only available in circular form.
- Fittings such as bends and tees are fabricated from sections of straight pipe.



Quality Assurance

- All materials used are required to comply with the Stanton Bonna specification and any relevant British, European or International Standard and must be supplied with Certification of Compliance.
- The physical properties of the Stanton Bonna GRP products are continuously tested during and, subsequent to, manufacture.
- All gravity pipes are pressure tested to 1.5 bar and all pressure pipes are pressure tested to 1.7 x working pressure.
- Manufacturing records are designed to enable traceability.

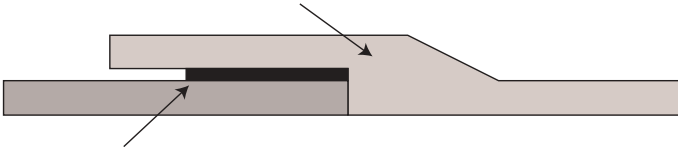
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Pipes, Liners and Inverts

Location Socket Joint

Available with all shapes and sizes of sewer liners.

Preformed integral socket to receive and locate the spigot

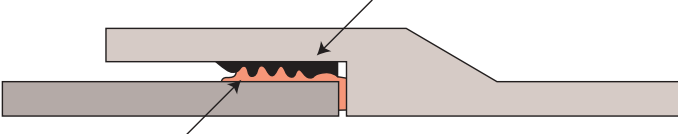


Joint sealed with mastic, epoxy resin mortar, expanded polystyrene or any other suitable material

Twin Gasket Joint

The twin gasket joint is available with most shapes and sizes of all products except pressure pipe.

Closed cell foam gasket bonded into socket

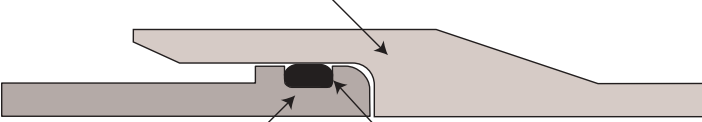


Rubber gasket bonded onto pipe spigot

Pipe Joint

Available with all circular pipes.

Integral socket



Preformed spigot

Joint sealed with natural or synthetic rubber joint ring (supplied with liner)

Manufacturing

- All liners are produced in accordance with WIS 4:34:02 and all products comply with the relevant sections of BS 5480 (1990).
- Products are bespoke and designed to give the required properties (short and long term) to suit the particular scheme.
- The filament winding process enables precise positioning of glass fibre in both the circumferential and longitudinal directions.

Raw Materials

- GRP pipes and liners are composed of three basic constituents: glass fibre, resin and sand.
- Glass fibre rovings are made from strong high grade borosilicate 'E' glass.
- The standard resin system is an isophthalic polyester which forms a matrix with the glass fibres and renders the structure impermeable to the fluids being carried.
- Graded inert silica sand is incorporated into the wall of the product to increase the thickness and stiffness.

GRP Joint Selector

Application	Joint		
	Location Socket	Twin Gasket	Pipe
Liners			
Circular	✓	✓	✓
Non Circular	✓	✓	
Invert	✓		
Gravity pipes			
Circular		✓	✓
Non Circular		✓	
Low Pressure Pipe			
Circular		✓	✓
Pressure Pipes			
Circular			✓