CHANNELINE
GRP Structural Lining Systems
For Large Diameter Circular
and Non-Circular
Structural Pipeline Rehabilitation

Features:
• Custom-Made Production in
  Any Shape or Size Required
• Fully Structural Rehabilitation Solution
• Maximizing Hydraulic Capacity
• Excellent Corrosion Resistance
• Excellent Impact and Abrasion Resistance
• Expected Service Life of Over 50 Years

Applications:
• Sewer Main Pipelines
• Sewer Overflow Pipelines
• Sewer Interceptor Pipelines
• Sewer Inverts
• Storm Water Drains
• Seawater Cooling Pipelines
• Large Diameter Culverts and Tunnels
• Railway & Road Culverts
Pipeline Rehabilitation

Within the APS Pipeline Rehabilitation Division we are able to provide turnkey service to our customers in the utility, power, oil and gas industries. The choice of the most suitable pipeline rehabilitation system depends upon which performance parameters the pipe fails to meet and why the failures occur. Criteria like; condition of the existing pipeline, requirements for the desired performance, hydraulic capacity and structural design data, as well as financial considerations have to be taken into account. Since there is no single solution that covers each and every pipeline rehabilitation project, APS prides itself in providing a very broad range of pipeline rehabilitation methods from which we can offer a tailor-made solution fitting the specific circumstances of the project. Channeline is one of these solutions.

Channeline has been involved in the provision of specialist GRP structural lining elements for over 3 decades, during which time we have accumulated an unrivalled degree of experience relative to the rehabilitation of both circular and non-circular large diameter buried pipeline structures worldwide. We are proud of our heritage and committed to serve our existing and future customers in the water and wastewater industries.

Channeline Technology

The general concept of the Channeline product is that a remarkably stiff and strong panel section is constructed, but with a relatively thin wall. The product differs from that of standard GRP hand or filament wound pipework in several fundamental and important ways. Normal GRP pipework consists of windings of layers of resin-saturated glass, which is impregnated with sand, achieving its stiffness by building up ever increasing wall thickness. Channeline however, derives its strength and stiffness through a different method, employing the mechanics of sandwich panel design, incorporating a unique polymer and aggregate core.

There really is no theoretical limit to the shape and size of Channeline panel that can be effectively manufactured. Because Channeline technology includes the evolution of multi-piece segmental construction, where necessary for transportation, even very large, peculiar shaped rehabilitation projects can be accommodated using Channeline product. Channeline can be produced in any size and shape, and specializes in egg, box and elliptical shapes, maximizing the rehabilitated cross-sectional area, thereby optimizing the flow capacity.
The following shapes and forms can be produced by our factory in Dubai in any size required:

- Circular
- Ovoid
- Egg shaped
- Elliptical
- Flattened Elliptical
- Arch barrel
- Box shaped
- Flattened Box shaped

**Channeline Range**

In addition to our standard Channeline system, we have complemented the product range with a Slip-Lining version, Channeline SL, allowing for non-man-entry and live flow installation, reducing installation costs both in time and elimination of over-pumping. Like the standard Channeline version, Channeline SL can also be tailor-made in any shape, form and size you can possibly think of.

Under the product name Channeline CL, the unique made to measure moulded Curved Liner is complementing the Channeline range, which offers a unique solution for lining bends for any size or shape with an integrated gasket seal.

**Installation Guidance**

**Channeline**

Access pits are prepared at suitable locations along the length of the pipeline to allow insertion of the Channeline sections. The Channeline segments are lowered into the pipeline and a special hydraulic trolley unit is then used to transport each liner segment along the length of the host pipe to the required location. Each liner segments connects easily to the previously installed one by means of the socket and spigot joint. Once butted together, the joints are injected with a flexible mastic epoxy adhesive/filler. After installation of the liner segments the annular gap between the host pipe and the Channeline segments is subsequently filled with a low viscosity, free flowing, rapid setting, and high-strength grout.

**Installation Guidance**

**Channeline SL & CL**

The same installation procedure applies to the Channeline SL with the exception that the Channeline SL sections are either jacked or winched in from the entry pit. The segments are connected through a gasket sealed bell and spigot joint, allowing for non-man-entry installation in live flow conditions.

The Channeline CL can either be installed using the same procedure as the Channeline SL, or be manually installed, like the standard Channeline version.

Channeline pipeline rehabilitation systems are installed world-wide by a network of trained and approved specialist contractors, experienced and trained in confined entry.
Worldwide Distribution Network

The Channeline GRP Structural Lining Systems are produced under rigid in house quality control, and in combination with strict inspection and testing regimes, both internal as well as external, ensures a quality product that has a proven track record for large diameter pipeline rehabilitation around the globe. Channeline products have been installed in projects in more than 30 countries.

APS is using licensed distributors to make our Channeline systems available throughout the world. For sales office details, or any other queries, please contact our headquarters in Dubai, or visit our website.

APS brings unrivalled levels of innovation, experience and expertise in corrosion engineering and contracting.

We have in-depth knowledge of the industry, our customers’ day-to-day challenges and the environmental, health and safety standards in the marketplace. By working in close partnership with our customers, our company is able to provide timely, efficient, cost-effective and above all quality products and services.


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