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# Lined Reservoirs, Lagoons and Storm Ponds

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Water is a most precious resource. Increasingly, to meet irrigation requirements, storage reservoirs are recognised as the key to water self-sufficiency.

The management of waste liquids and effluents is subject to stringent legal requirements meaning that lagoons and ponds are required to avoid their discharge into rivers and other watercourses prior to treatment.

Synthetic liners – Geomembranes – provide a cost effective and assured method of waterproofing these in-ground / earth-built structures.

This brochure details the substantial experience of Geosynthetic Technology Limited (GT) and the benefits of employing the service and materials of the company in the construction of lined reservoirs, lagoons and ponds.

GT offer a wide-range of high performance liner products manufactured from Polyethylene (PE) and Polypropylene (PP) and specific formulations to meet every requirement. Our liners and installation services are recognised internationally as 1st Quality Standard giving optimum service life.

Front cover photos, top to bottom

Effluent Lagoon *Somerset*

Irrigation Lagoon *Lancashire*

Industrial Cooling Lagoon *Yorkshire*

Farm Irrigation Reservoir *Norfolk*

Storm Water Pond *Finland*

Farm Irrigation Reservoir Lining *Suffolk*



# About GT

- GT is a specialist contractor in the provision and installation of high performance lining systems for reservoirs, lagoons and storm ponds. Our customers include farmers, industrial corporations, oil companies and water companies.
- GT provides an international service having undertaken lining contracts in more than thirty countries on five continents.
- GT can provide prefabricated liner panels for smaller projects, allowing our Clients to undertake their own installation.

# Quality Assurance

- All site works undertaken by GT are carried out in full compliance with the company's ISO 9001 Quality Assured Operating Procedures.
- All liners installed by GT are covered by a bona fide twenty-year warranty.



# The Lining Installation Process

1

Preparatory earthworks in progress. The area is cleared of large stones, debris and tree roots and is compacted to give a firm, dry surface on which to lay the lining system.



2

Geotextile underlay is installed. This provides a puncture-resistant layer onto which the geomembrane lining can be laid.



3

Geomembrane lining is laid. All joints are welded on site to ensure full waterproof integrity.



4

Fully lined earth structure awaiting filling. If required a geotextile overlay can be added to allow landscaping / soil covering.



Photo references, top to bottom  
Settlement Lagoon *Isle of Wight*  
Lagoon *West Sussex*  
Slurry lagoon *Wiltshire*  
Irrigation Reservoir *Suffolk*

# Examples of our work

*Left*  
Lechgate Lagoon  
*Norfolk*



*Right*  
Irrigation Reservoir  
*Kent*



*Left*  
Waste Water Lagoon  
*Herefordshire*



*Right*  
Irrigation Reservoir  
*Norfolk*



*Left*  
Irrigation Reservoir  
*Oxfordshire*



*Right*  
Slurry Reservoir  
*Hampshire*



*Left*  
Irrigation Reservoir  
*Hampshire*



*Right*  
Slurry Lagoon  
*Somerset*



*Left*  
Irrigation Reservoir  
*West Sussex*

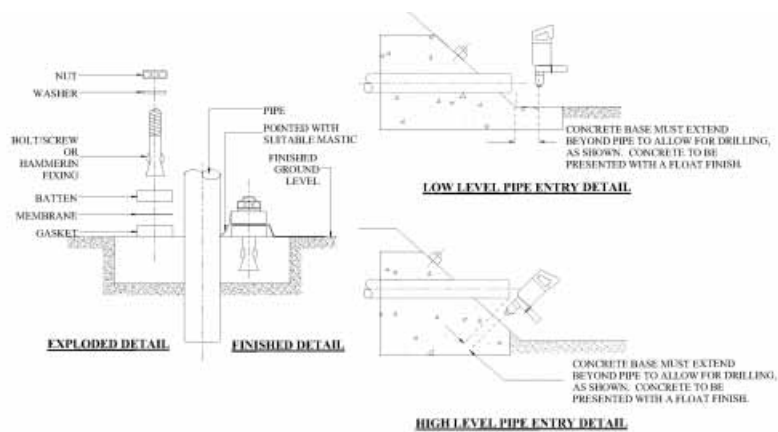


*Right*  
Irrigation Reservoir  
*Worcestershire*



# Technical Support

- GT will provide input into the design of reservoirs and lagoons and prepare Method Statements detailing the necessary construction earthworks required.
- GT will, if required, work with suitably qualified Contractors to provide a complete service for the building of the reservoir or lagoon
- GT will assist other contractors working on the scheme by providing appropriate technical drawings to ensure the overall design meets the Client's requirements.
- GT has installed many millions of square metres of lining systems. This experience can prove invaluable for your project.



# Examples of our International Work

*Left*  
Irrigation Lagoon  
*Bahamas*



*Right*  
Storage Reservoirs  
*China*



*Left*  
Treatment Lagoons  
*Ireland*



*Right*  
Tank Bund Lining  
*Kazakhstan*



*Left*  
Fire Fighting Lagoon  
*Papua New Guinea*



*Right*  
Irrigation Lake  
*Portugal*



*Left*  
Sewerage Pond  
*Saudia Arabia*



*Right*  
Toxic Waste Lagoon  
*Spain*



*Left*  
Solar Evaporation Lagoon  
*Oman*



*Right*  
Secondary Containment Lining  
*Ascension Island*



# WORLDWIDE GEOMEMBRANE ENGINEERING



Irrigation Reservoir *East Anglia*



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