

WALO

International

FULLY ENGINEERED CONTAINMENT SOLUTIONS

LINING RESERVOIRS, DAMS AND DAM CORES



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Dense Asphaltic Concrete (DAC) has been used to seal reservoirs, upstream dam faces and asphalt cores to large embankment dams since the 1930s. Now an internationally recognised technology, it is used around the world to provide impermeable containment systems for many applications from dam faces to landfills.

WALO is a hydraulic asphalt engineering specialist, internationally renowned for providing barrier systems for the containment of water, with particular expertise in lining systems made from Dense Asphaltic Concrete (DAC). WALO delivers these systems to the water and power industries across the globe for a large range of applications of all sizes, including dam faces and cores, reservoirs, hydro-electric infrastructure, artificial lakes, lagoons and ponds.

WHAT IS A DENSE ASPHALTIC CONCRETE LINING SYSTEM?

WALO's DAC lining system is a fully engineered, specifically designed lining system, comprised of an asphaltic mixture, consisting of bitumen and a continuously graded aggregate, designed in the company's Zurich laboratory for each individual contract. The finished product is installed by WALO's expert team using specialised equipment and laying and compaction techniques.

PERFECT FOR CONTAINMENT OF WATER

- Due to its high density, DAC is extremely resistant to chemical, biological or mechanical attack, while still thin enough to be flexible under extreme pressure and strong enough to withstand the stress of large and varying volumes of water being pumped in and out every day.
- Long, steep slopes with gradients in excess of 1:1.6 and slope lengths of up to 150 m can be constructed using the company's specially engineered equipment and DAC. Any joints required are made strong and totally impermeable by the special treatment and compaction methods employed, ensuring a completely homogeneous, totally impermeable lining system.
- DAC is ideal for hydraulic engineering projects, providing a highly robust, impermeable, non-toxic lining.
- It is very quick to lay, even on very steep slopes, and is totally safe for human, animal and marine life – making it ideal for water storage.

Below:

Partial rehabilitation of reservoir slopes with an incline of 1:1.6.





Clockwise from top left:

Installing a dense asphaltic concrete core liner to an earth embankment.

WALO has specially designed equipment to tackle even the steepest slopes with a gradient of up to 1 in 1.6.

WALO transports its specialist equipment to construction sites all over the world.

The WALO team is highly trained in the use of technically sophisticated equipment.



REHABILITATION OF OLDER STRUCTURES

As well as new constructions, WALO is often called upon to carry out remedial work on existing structures. As with all highly loaded and stressed construction structures, asphaltic linings may be subject to natural ageing after decades of operation.

Quite often only partial rehabilitation is required i.e. the treatment of isolated areas or just the top surface of the sealing system. In many cases the 'water exchange zone' - the area where the water changes height - is the area which may become weathered, so just the upper part of the dam and the surface of the dam face needs rehabilitation.

CONSTRUCTION QUALITY ASSURANCE

WALO lining systems are installed using a very comprehensive Construction Quality Assurance (CQA) procedure, supported throughout construction by WALO's on-site laboratories and technicians. All results can be re-tested following the construction period without destroying the integrity of the lining material.

A COMPLETE SERVICE

With outstanding technical engineering knowledge and the specialist equipment to provide a DAC impermeable barrier system for any situation, WALO provides a complete service to its customers – from feasibility studies to designing, manufacturing and installing a DAC sealing system to match their requirements in every kind of containment situation.

To find out how WALO can provide the landfill lining solution for you, please contact **David Wilson**, Managing Director on **+44 (0)1785 719793** or email **info@walo.co.uk**.

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