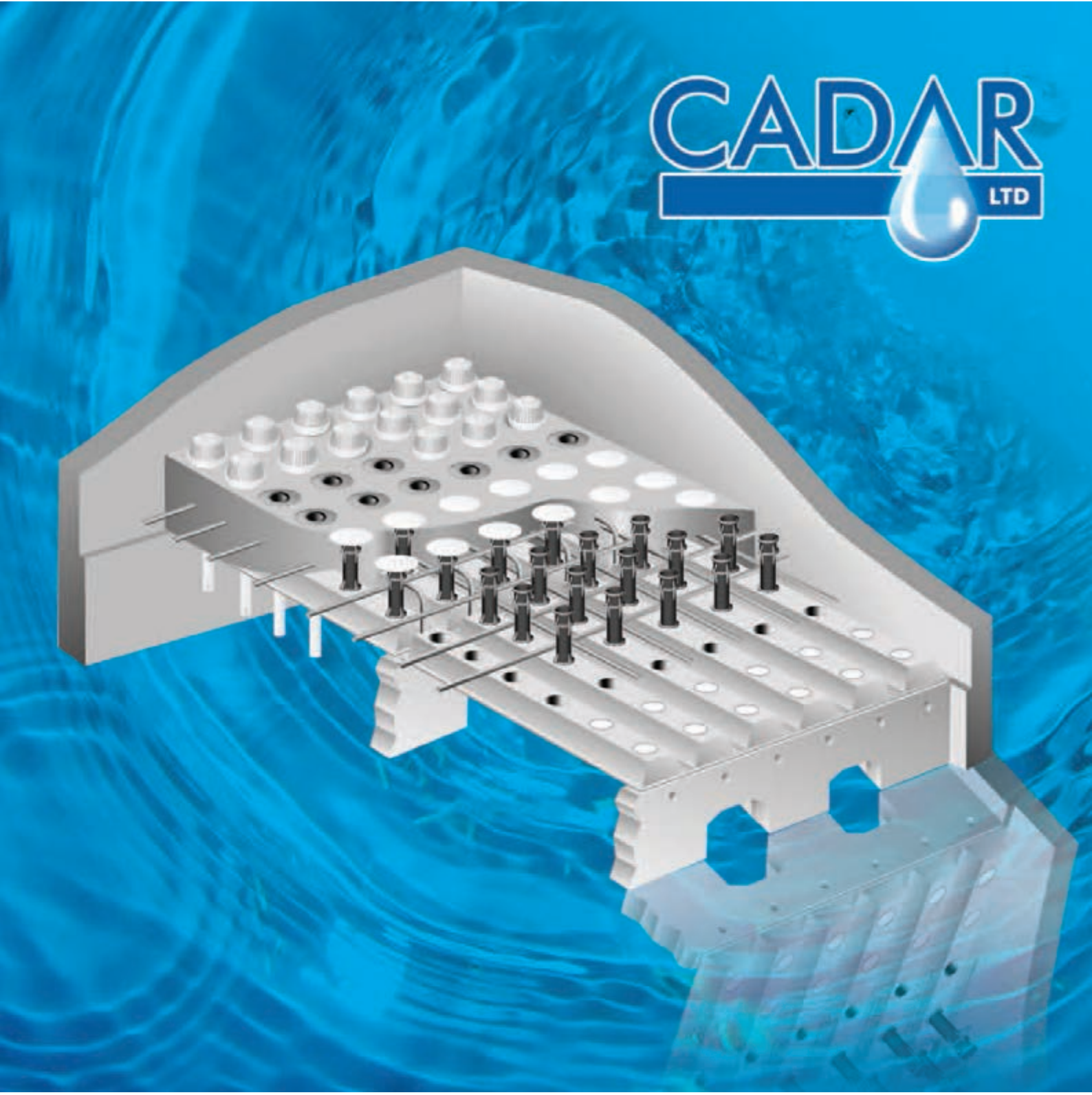
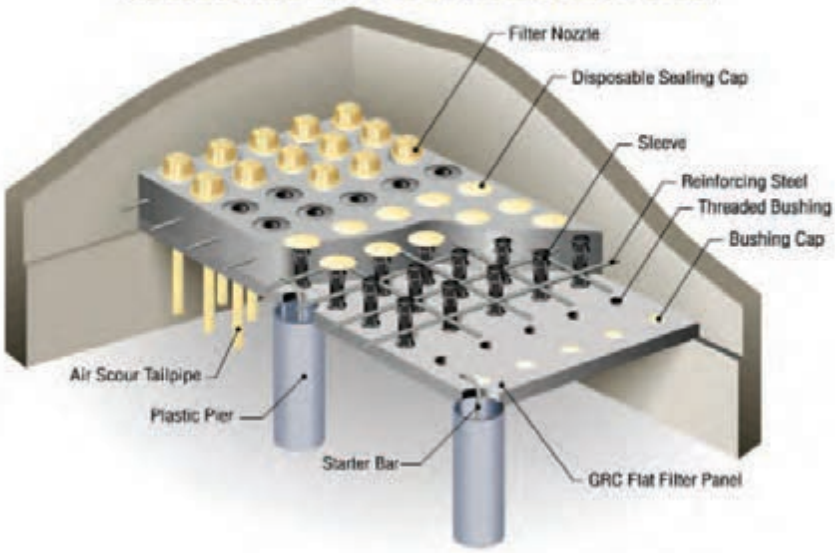


Monolithic Filter Floors

For new or retrofit installations

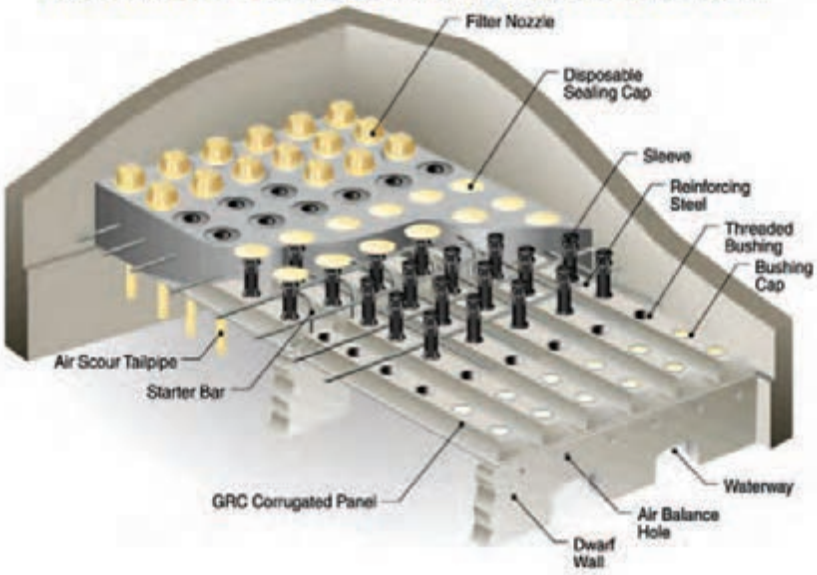
www.cadar.ltd.uk

Monolithic Flat Panel Filter Floor



Flat panel system ideal for retrofit applications and restricted head situations.

Monolithic Corrugated Panel Filter Floor



Corrugated panel system ideal for new construction and large areas.

Introduction

For more than 20 years cadar have been supplying designs and component for our monolithic concrete filter floor system. The system is a "cast in-situ" design that becomes part of the surrounding civil structure. Unlike other suspended filter floor systems there is no risk of degradation or structural failure, that may lead to the requirement of a refurbishment in years to come.

The system is lightweight and easy to install, allowing the installation to be completed to a very high standard of accuracy.
Although lightweight the system is extremely strong, matching that of its civil surrounds.

Cadar offer a complete engineered package for the monolithic floor. We can supply all designs, documentation, calculations and technical components required for efficient installation and commissioning.

Because of the modular supply of the system, we are able to remove risks of on site design and quality control, delivering a packaged system ready for installation. However, by utilising local supply of standard materials, such as steel reinforcement and concrete, we are able deliver a high quality engineered product at a very competitive price.

Both options of design, shown on the previous page, have been utilised in a wide range of applications around the world, including:

- Rapid gravity sand and multi media filters
- Activated carbon contactors
- Tertiary filters on sewage treatment plants
- Up flow sand filters
- Biological up flow filters

Installation of corrugated GRC Panel Filter Floor

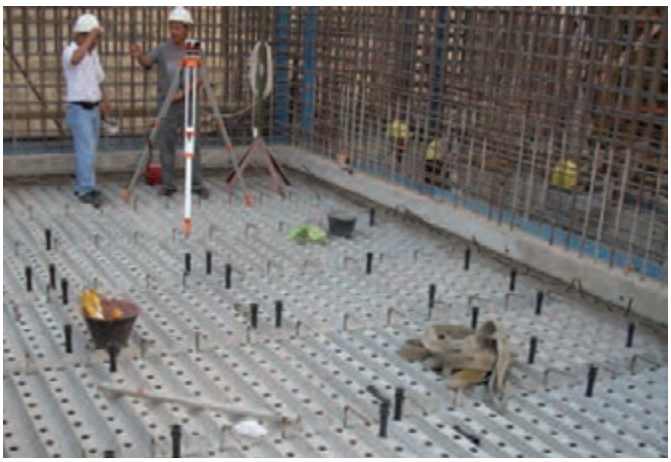
Glass reinforced concrete (GRC) Panel.

Civil support structure ready for filter floor installation.

Alternative steel support structure.

GRC panels being positioned on dwarf walls.

GRC panels being positioned on alternative steel support structure.



Level check over GRC formwork.

Panels sealed to support wall and abutting panel, then steel reinforcement positioned.

Installation of all threaded sleeves and protection caps.

Pouring and vibration of concrete.

Concrete shortly after curing.

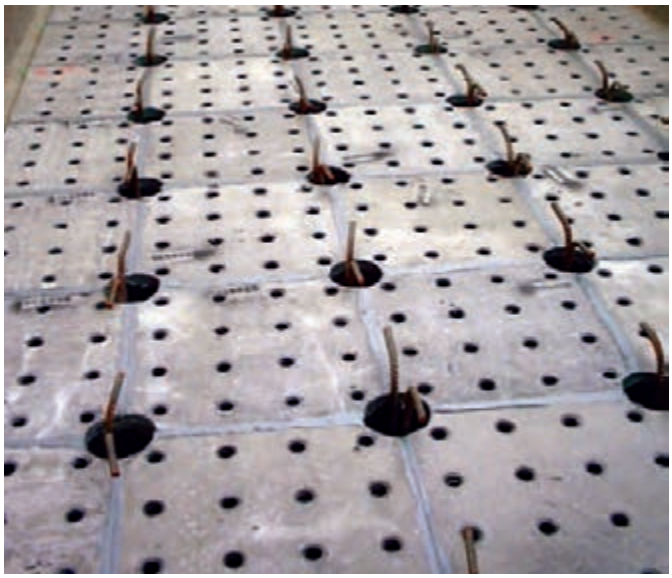
Finished filter floor with caps removed and filter nozzles installed.

Air scour pattern test of finished filter floor (To prove level within tolerance).

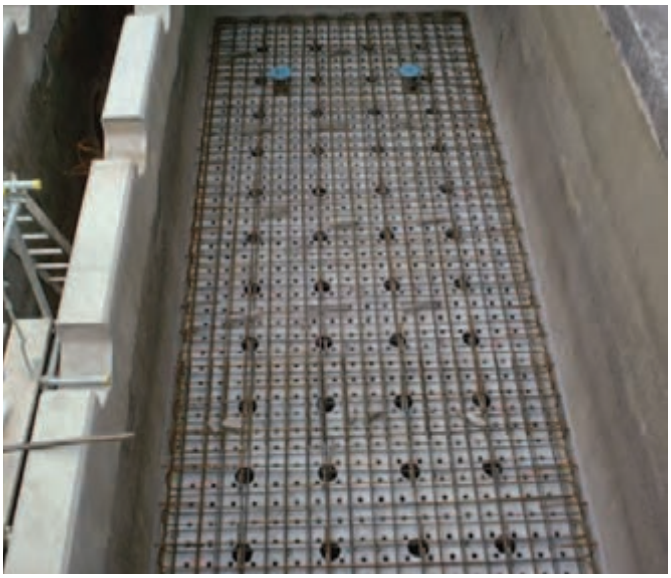
Installation of flat GRC Panel Filter Floor

Flat GRC Panel
(3 different nozzle densities available).

Plastic support tubes, cut to size and levelled.



Panels sealed to support tube and abutting panel.



Placement of steel reinforcement.

Steel reinforcement showing connecting steel within support tube.

Installed threaded sleeves and protection caps.

Close up on threaded sleeves and steel reinforcement.

Placement of concrete see page 5 for finished floor.

Design and Testing

Cadar offers a comprehensive design and testing package backed by our experienced engineers and consultants.

This will cover civil structural design calculations and loadings, through to the flow management of both water and air through the filter floor system.
Thorough civil design ensures the maximum asset life of the filter floors, while accurate flow management ensures the optimisation of process design and life of filter media without the need of maintenance.

In house testing of liquid flows.

Particular attention is paid to the filter nozzle design. Our state of the art production facility ensures the design, quality and back up will be second to none.
Accuracy of manufacture allows for optimum media retention, often removing the need for multiple support layers. Our computerised flow programs allow us to accurately profile the flows of air and water.

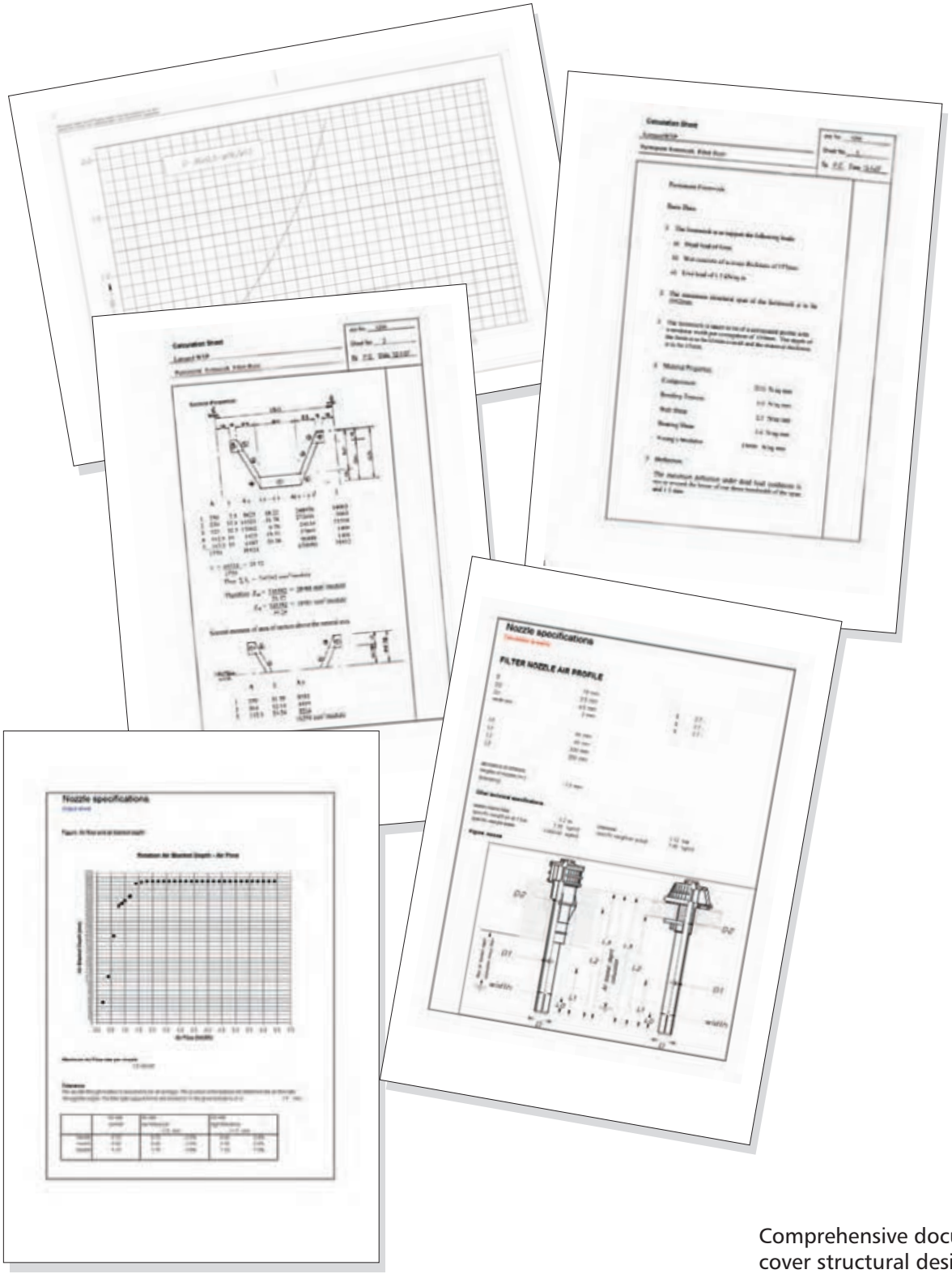
Latest equipment ensures the highest product quality and speed delivery times.

All flow designs are backed by in-house physical testing, to cross check the computer designs.
With over 25 years of experience we have found the accurate control of air scour, followed by the correct distribution of back wash (by pressure differential control) to be the vital element of filter floor design.

Whether it is a new construction or the refurbishment of an older system, we are confident we can offer the correct package for the project.

In house testing of flows of liquid and/or air.

Design and Testing



Comprehensive documentation to cover structural designs and flow profiling of air and water.

Cadar

Pictures by kind permission of Earth Tech

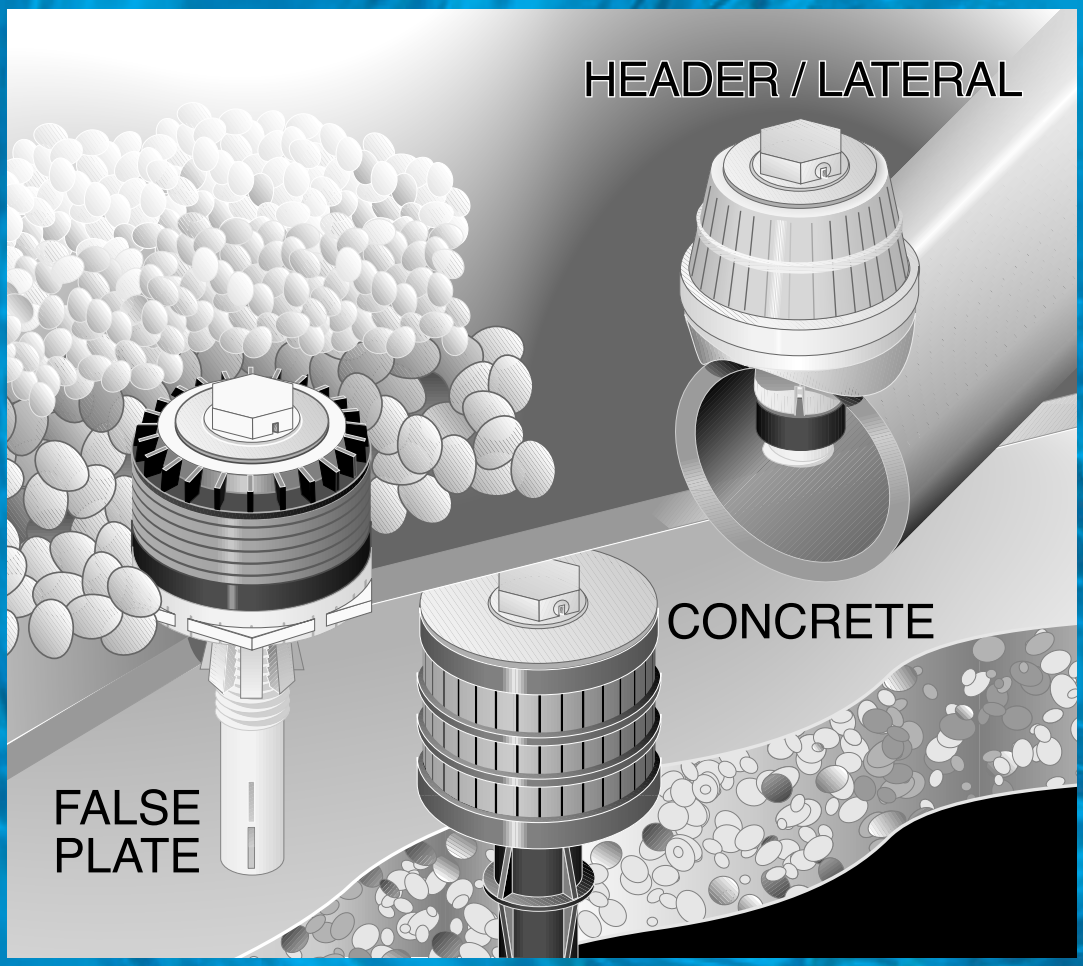
Cadar

Cadar have installed “Monolithic” filter floors for various applications, at over 125 sites, in 25 different countries around the world. We are fully aware of the varying requirements at the diverse environments worldwide. Whether it be for new construction or retrofit work, we can offer on site training at the initial installation stages.

By liaising with local civil / mechanical contractors and consultants, we are able to ensure an extremely high technical package at a very competitive price.”

“Your application may be for drinking water, final treatment of effluent, waste water or pre treatment for sea water desalination. Whatever your application, contact CADAR for our dedicated assistance, wherever you are in world.”

Site locations around the world



Cadar Ltd can also assist with other collection / distribution systems within many industrial and municipal applications. Contact us to find out more

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