

### General Handling

The Hydro Biofilter™ units are supplied with internal components pre-installed into a CPM Group concrete chamber, complete with cover slab.



The cover slab incorporates a half-battered kerb, complete with inlet slots, a tree grate frame and pipe inspection port.

Improper handling can result in damage to the components and / or the concrete chamber.

Failure to comply with the Hydro International / CPM Group handling and installation instructions voids all warranties.

Upon delivery, the Hydro Biofilter™ unit(s) should be inspected immediately for any damage sustained during transportation. If any discrepancies or problems are noted, then the supplier should be contacted prior to unloading to initiate the corrective action procedures.

Unloading of a damaged unit without notifying the supplier voids all warranties and releases liability of costs of repair or replacement from Hydro International or CPM Group.

At all times during unloading and installation, care should be taken to avoid any impact to the units or damage to the protective boards and coverings. Do not allow any of the components to be dropped, dragged or pushed. At no time shall anyone step, stand or place unnecessary load on the components.

All components shall be lifted and moved using the designated lifting points, using appropriately rated equipment, giving firm and complete support to the unit at all times.



Example of lift and correct lifting points.

The Hydro Biofilter™ unit(s) shall be installed as soon as practical following delivery. Pending installation any loose components, including lifting loops, sealant or seals shall be temporarily stored in an area protected from dirt and impact.

### Site Preparation

The excavation shall be properly prepared in advance so that the unit may be installed as soon as practical following delivery.

The excavation shall meet all minimum Health and Safety standards for construction.

The area of the excavation should be carefully checked for any other services.

A sub-base of compacted stone or concrete (depending on site conditions and considering the weight of the unit during operation) must be level and at the correct elevation prior to placing the Hydro Biofilter™ unit into the excavation.

### Lifting and Moving

The table below gives lifting weights for the Hydro Biofilter™ units, complete with pre-installed internal components, engineered filter media and cover slabs:

Unit Size (m)	Chamber and Internal Components (kg)	Cover Slab Including Kerb (kg)
1.2 x 1.2	4,150	1,150
1.2 x 1.8	5,750	1,750
1.2 x 2.4	7,300	2,250

Chambers and cover slabs must be lifted separately using appropriate lifting equipment.

# Site Installation Instructions

## Hydro Biofilter™

### Lifting and Moving Cont...



Chamber lift and correct lifting points.



Cover lift and correct lifting points.

## Installation

Offload the Hydro Biofilter™ unit and place in the prepared excavation.

Ensure that the unit is correctly orientated and that the outlet is in the correct position and at the correct level. Ensure that the top of the unit is at the correct elevation such that the integral kerb on the cover slab will be at the correct level.

Connect the outlet pipe to the socket in the chamber wall.

**DO NOT REMOVE THE PROTECTIVE BOARDS AND FABRIC COVERING TO THE FILTER MEDIA.**



Chamber being lowered into position.

Connect the outlet pipe to the socket in the chamber wall.

**DO NOT REMOVE THE PROTECTIVE BOARDS AND FABRIC COVERING TO THE FILTER MEDIA.**



Chamber showing protective fabric and boards covering the filter media.

# Site Installation Instructions

## Hydro Biofilter™

### Installation Cont...

Place the Butyl sealant around the top surface of the chamber and carefully place the cover slab on the chamber. The integral kerb should be aligned with the road and at the correct elevation.

The protective boards around the tree grate will need to be removed when lifting / moving the cover slab to access the lifting points.

**THESE PROTECTIVE BOARDS MUST BE REPLACED FOLLOWING INSTALLATION OF THE COVER SLAB.**



Chamber with Butyl sealant.

Carefully backfill surround to the unit with suitable material in 300 mm layers and compact appropriately.

**DO NOT REMOVE THE BUNGS SEALING THE KERB INLET SLOTS.**

Removal / failure to replace any of the protective items prior to commissioning will void any warranties and may result in contamination of the media and impair future operation.



Bungs sealing the kerb inlet slots.

### Pre-Commissioning Procedure

Commissioning will only take place once the following actions have been completed on site:

- **The project's landscaping is to be fully stabilised, ie. full landscaping installed and some grass cover to reduce site sediment transport.**  
This reduces the potential for contamination of the system by construction materials over and above the intended design capacity. Simple seeding and straw cover requires time for grass growth to reduce runoff velocities and contain sediment transport. An early excess of construction sediment may choke the system and limit the prospects of establishing the plant and bacterial components integral to the Hydro Biofilter™ system.
- **Final paving / surfacing should be completed.**  
The act of surfacing the road and paved areas can introduce chemicals that may be harmful to the immature plant installed at commissioning. Final surfacing also ensures that the plant will receive runoff from the drainage area for irrigation purposes.
- **Paving / road surfacing areas should be cleaned (ideally performed with street sweeping equipment).**  
Any aggregate staging areas within the contributing drainage area must be avoided. Again this may contribute to sediment overload during the plant's establishment period.

# Site Installation Instructions

## Hydro Biofilter™

### Commissioning

Commissioning will only take place once the Pre-Commissioning actions have been confirmed as completed. If these actions are not complete on arrival at site, we will charge for any additional visits that may be required.

Commissioning will be carried out by Hydro International personnel or authorised representatives. It will include the following activities:

- Inspection for correct installation.
- Removal of protective boards and media protection fabric.
- Inspection of media for signs of contamination.
- Cleaning of underdrain pipe (if required).
- Installation of plant.
- Placing of final mulch layer.
- Installation of erosion control stones.

A Commissioning Record will be produced and retained by Hydro International.

**Following commissioning, each Hydro Biofilter™ unit must receive adequate irrigation to ensure survival of the living system during periods of drier weather.**

For commissioning requests, the form below should be completed and submitted to your supplier or the Hydro International office.

**We will also require a copy of the layout drawing showing the location of the Hydro Biofilter™ unit(s) and the location of the bypass inlet. Please forward a copy by fax or e-mail to the address shown below.**

**Note: If the site has been opened to traffic at the time of commissioning, then appropriate traffic control measures to allow safe access to the unit(s) will need to be in place.**

### Commissioning Request Form

Fill in and Fax to: 01275 874979 or E-mail to: [enquiries@hydro-int.com](mailto:enquiries@hydro-int.com)

<b>Hydro International Reference No.</b>	
<b>Company (responsible for installation)</b>	
<b>Site Address</b>	
<b>Contact Name (person responsible for the site)</b>	
<b>Contact Tel:</b>	
<b>Signature (person responsible for the site)</b>	
<b>Date</b>	
<b>Requested Date for Commissioning</b>	
To be completed by Hydro International:	
Confirmed Commissioning Date: .....	Confirmed by: .....