



Mini Filtration System

Installation & Service Guide

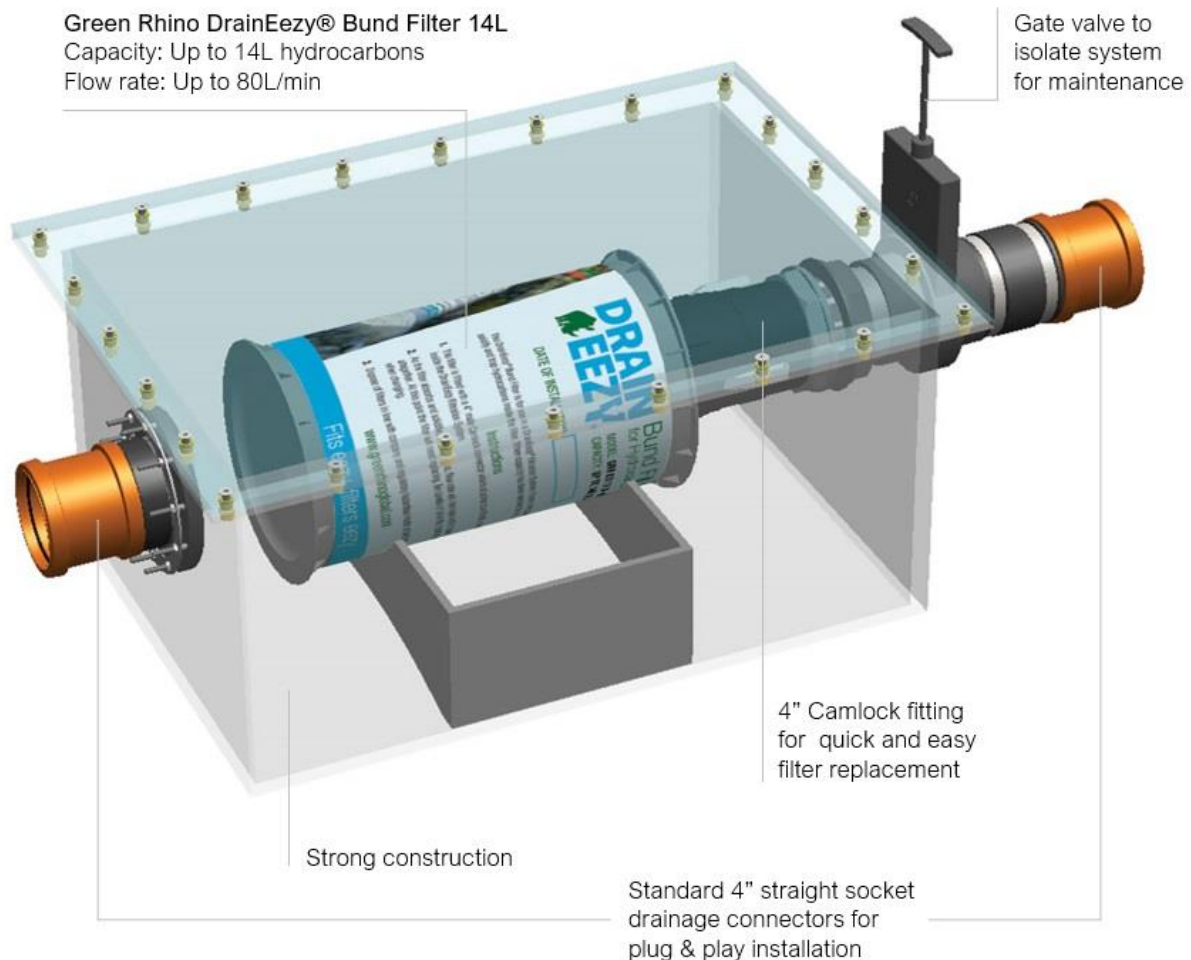


Read this guide:

- To determine if this DrainEezy® Filtration System is suitable for your application
- To plan installation
- For servicing guidelines

How does it work?

The DrainEezy® Mini Filtration System is a self-contained separator that can be installed at the end of, or within, a site drainage system. It can process up to 80 litres of water per minute and has a capacity of up to 14L of hydrocarbons.



If you require a higher flow rate, or greater hydrocarbon capacity, consider the **DrainEezy® Midi and Maxi Filtration Systems** or a full retention separator.

This plug-and-play system utilises standard 4" (110mm) pipe connectors and has no power or internet requirements.

The Mini system is comprised of a chamber housing a **DrainEezy® Bund Filter**. Water enters via the inflow and is directed through the bund filter which removes any hydrocarbon contamination. Clean water is discharged from the filter into the chamber and exits via the outflow.

The system is designed to operate to Class 1 (full retention) oil water separator guidelines, discharging water to the environment with a hydrocarbon content of no more than 5ppm. Unlike traditional oil water separators, the system also targets emulsified, dilute and dissolved phase hydrocarbons.

The DrainEezy® Bund Filter uses a proprietary blend of smart polymers to absorb hydrocarbons and turn them into a solid substance, trapping them permanently inside the filter. The quantity of smart polymer inside the filter is designed to block the filter once fully activated. This provides a failsafe pollution prevention mechanism in the event that the drainage system is inundated with hydrocarbon pollutants or when the filter has reached capacity.

The Bund Filter has a capacity of up to 14L of hydrocarbons and will work effectively with a range of hydrocarbons including fuels and oils.

Installation

The physical characteristics of the Mini system are:

Dimensions: 41cm (H) x 56cm (W) x 115cm (L).

Weight: 35kg

Under normal circumstances the Mini operates under gravitational pressure and is designed to be installed below ground in an inspection chamber. It can be installed either at the outfall of a drainage system or as an inline processing unit.

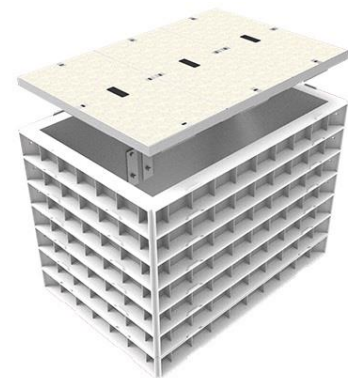
The system is supplied as a sealed unit that has an inlet at one end and an outlet at the other, both using standard 4" (11cm) pipe connections. You should not need to remove the lid of the chamber before or during installation.

Once a location for the system has been determined, we recommend that an excavation is dug and a concrete based laid with a 30cm sump.

To house the system, you can construct a concrete or block chamber or use a composite interlocking chamber (e.g. Cubis RapidSTACK™). We recommend internal measurements should be no less than 250cm x 150cm.

Once an underground housing chamber and drainage infrastructure are in place the Mini can be dropped into position and connected to the drainage pipework.

The system includes a shut-off valve which should be in the open position during operational use and in the closed position during maintenance or inspection.



Servicing

The Mini requires very little maintenance. The **DrainEezy® Bund Filter** inside the chamber is designed to block the flow of water once the full capacity of hydrocarbons has been absorbed. This provides a failsafe pollution prevention mechanism in the event that the drainage system is inundated with hydrocarbon pollutants or when the filter has reached capacity.

As full capacity is approached flow through the filter will reduce. Limited or zero flow of water, or a build-up of water on the inflow side of the chamber, will indicate that the filter needs to be replaced.

We recommend that a replacement filter is always kept on site to minimise interruptions to site drainage.

Potential maintenance issues and their remedies are as follows:

Flow has stopped / Chamber has drained

Either the inflow has become blocked or the Bund Filter has reached capacity and needs to be replaced.

1. Close the gate valve. If gate valve cannot be closed, pipe may be blocked with debris.
2. Remove the lid from the system and remove the filter. **Note that filters can weigh up to 20kg when saturated and could pose a manual handling risk.**
3. Check inflow pipe for blockage. Take care not to release contaminated water into the environment. You may need to block the outflow to contain potentially contaminated water backed up in the inflow pipe.
4. If inflow pipe is clear, remove and replace filter. The filter should be disposed of in accordance with company hazardous waste procedures. The disposal code for oil-filled filters is **EWC 15 02 02**.
5. If inflow pipe was blocked and has now been cleared, refit the filter and check that flow resumes. If it doesn't, replace the filter.

Flow has stopped / Chamber has not drained

This suggests that the outflow is blocked. Check and clear outflow.

The water in the chamber shouldn't be contaminated with hydrocarbons but if it is then clean it before discharging using a **Green Rhino Oil Retention Pillow** before discharging the water

Replacement Parts

If you need to order a replacement DrainEezy® Bund Filter, please use the following code:

Code	Description
GRR 03 10 00 HRF	DrainEezy® Bund Filter for Hydrocarbons 14L

Call **01206 299388** or email **sales@greenrhinoglobal.com** for pricing.