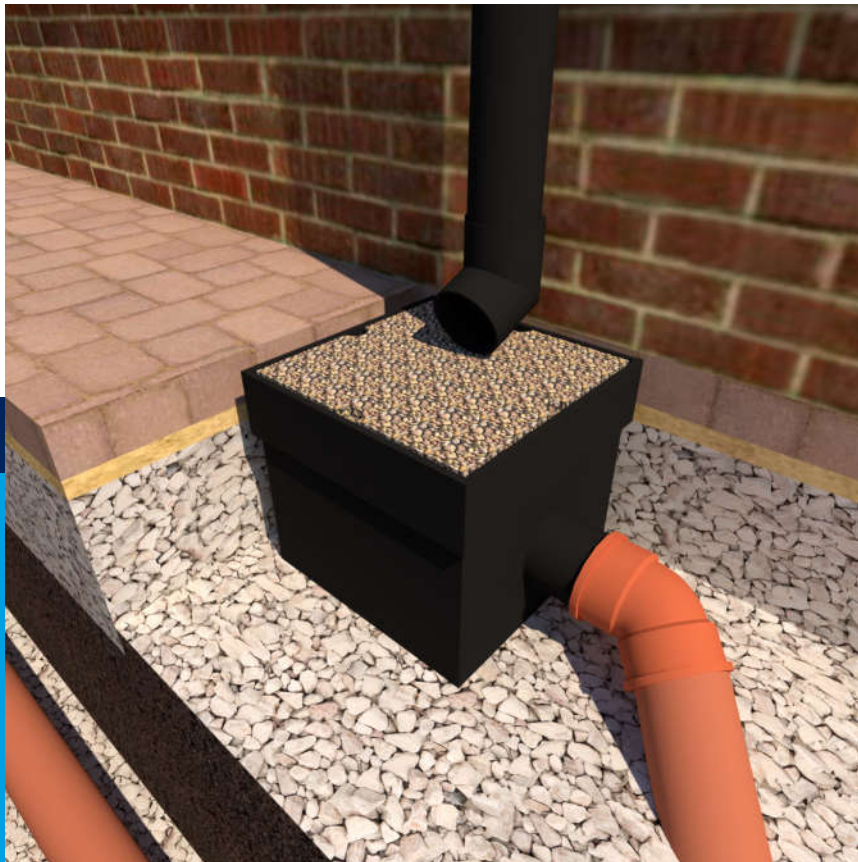


Straightforward SuDS for HOUSING



RAINTAINA



Raintaina Filter Chamber for Rainwater Downpipes

Version 1

PRE-TREATMENT

Raintaina RWP Filter Chambers

Pre-treatment

The best way to protect an underground drainage system from blockage is to install measures at source which prevent silts and other detritus from entering an underground network. [Raintaina RWP Filter Chambers](#) provide pre-treatment to downpipe run-off, presenting an effective barrier to harmful elements flowing from roofs.

The [Raintaina RWP Base Unit \(RTNA05001\)](#) is a standalone filter chamber and is situated underneath downpipes from roofs. The modular units are lightweight and easy to install. Each unit has a 110mm diameter spigot to fit standard PVC-u underground drainage. They also contain a sump for the removal of any silt or sediment.

[Raintaina RWP Base Units](#) are designed for use with removable filter covers. There are 2 types of cover available:

- RTNA06001; fabricated from resin bound aggregate and available in various colours. The RTNA06001 provides an effective barrier to silt and other detritus flowing from roofs. They are easily removable for maintenance purposes.
- RTNA06002; this units allows for continuation of the gravel margin around a property. As with the RTNA06001 it is removable for maintenance.

For instances where a downpipe discharges directly into the aggregates beneath a permeable pavement the RTNA05002 unit will allow diffusion of collected run-off whilst providing protection from siltation and scouring.

Base Unit (RTNA05001)



Base Unit (RTNA05001)

Debris and silts are intercepted by using the standalone Raintaina RWP Filter Chamber with removable lid.

Diffuser Base Unit (RTNA05002)



Diffuser Base Unit (RTNA05002)

Debris and silts are intercepted by using the diffuser Raintaina RWP Filter Chamber with removable lid.



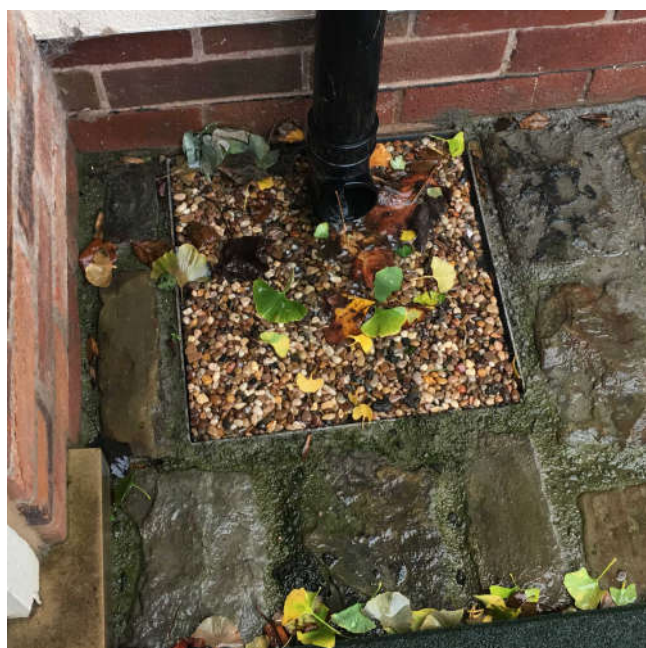
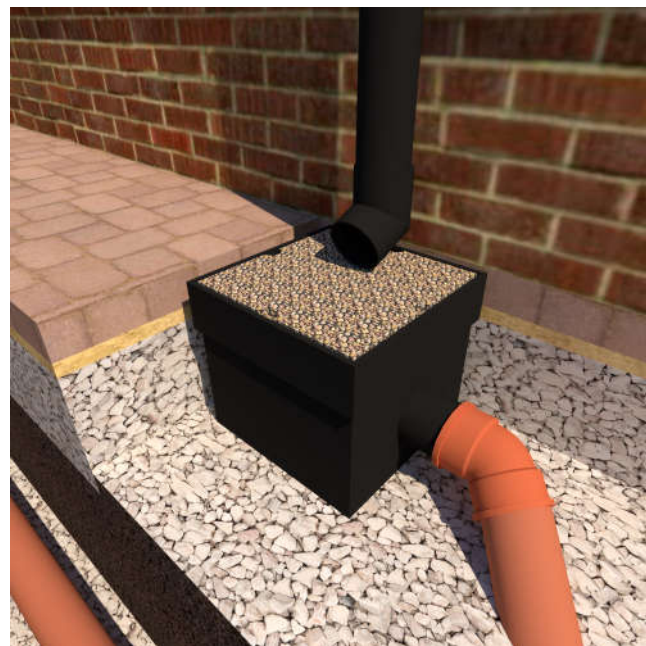
RAINTAINA

Filter Cover (RTNA06001)



Filter Cover (RTNA06001)

Removable filter cover for easy maintenance. Simply flush clean with a hose and replace.



The [Raintaina Filter Cover](#) (RTNA06001) is resin bound aggregate formed into a macro porous/micro porous cover. The cover separates/filters out the Silt /TSS within the flow, allowing only cleansed water to pass through its matrix.

The maximum water flow through the filter cover is $>60 \text{ l/s/m}^2$. For each individual lid this allows for 150m^2 of roof to be drained with a safety factor of 2, in accordance with the Building Regulations Part H 2015.

Rainwater discharges on to the top of the chamber such that any silts, leaves, windfall, etc... are retained on top of the filter cover. The cover can be easily removed for cleaning.



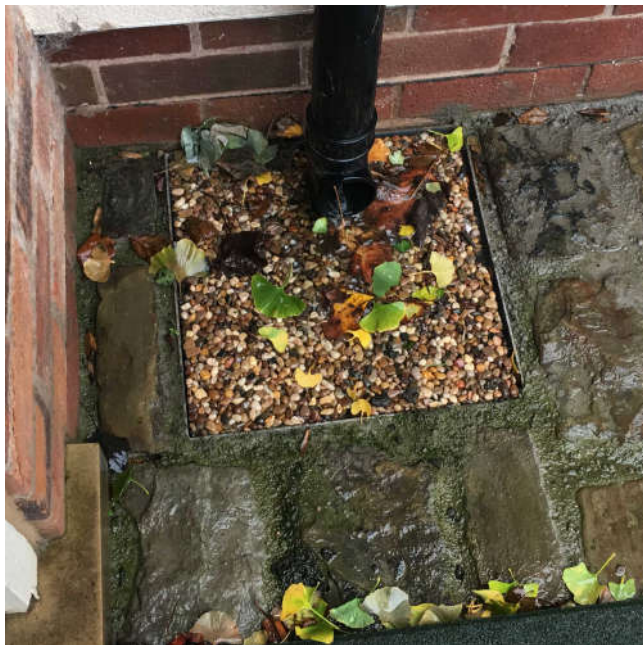
Raintaina Filter Cover

Pre-treatment

The best way to protect an underground drainage system from blockage is to install measures at source which prevent silts and other detritus from entering an underground network. **Raintaina Filter Covers** provide pre-treatment to downpipe run-off, presenting an effective barrier to harmful elements flowing from roofs.

The **Raintaina Filter Cover** (RTNA06001) is resin bound aggregate formed into a macro porous/micro porous cover. The cover separates/filters out the Silt /TSS within the flow, allowing only cleansed water to pass through its matrix.

The maximum water flow through the filter cover is >60 l/s/m². For each individual lid this allows for 150m² of roof to be drained with a safety factor of 2, in accordance with the Building Regulations Part H 2015.



Easy to Maintain

Rainwater discharges on to the top of the chamber such that any silts, leaves, windfall, etc... is retained on top of the filter cover. The cover can be easily removed for cleaning.

This filter unit enables a downpipe to discharge on to an open filter for separation of silt, leaves and other detritus and is developed to encourage user intervention when the filter needs cleaning.

The indents on the side of the cover make it quick and easy to install and maintain. The unit below contains a sump so that any silt or sediment passing through the filter cover will deposit on the bottom of the sump preventing the clogging up of the system, this makes it easier for cleaning and maintenance.

Filtration can be further enhanced if required by placing a geotextile insert below the filter cover.

In addition to standard geotextiles, a high-performance oil retaining Permafilter geotextile insert is available where mobility of hydrocarbons is a concern. Permafilter is a blend of polyester fibres with hydrophilic (water-attracting and oil repellent) and hydrophobic (oil attracting and water repellent) properties to achieve superior oil retention.

Permafilter is capable of retaining a range of oil contamination types, from daily car drip losses to catastrophic spillages such as car oil-slump failures. The entrapped hydrocarbons are biodegraded by naturally occurring microorganisms, providing a self-cleaning mechanism. Permafilter is capable of retaining 6l of oil per 10m².

HOW TO BUILD THE SYSTEM - ATTENUATION

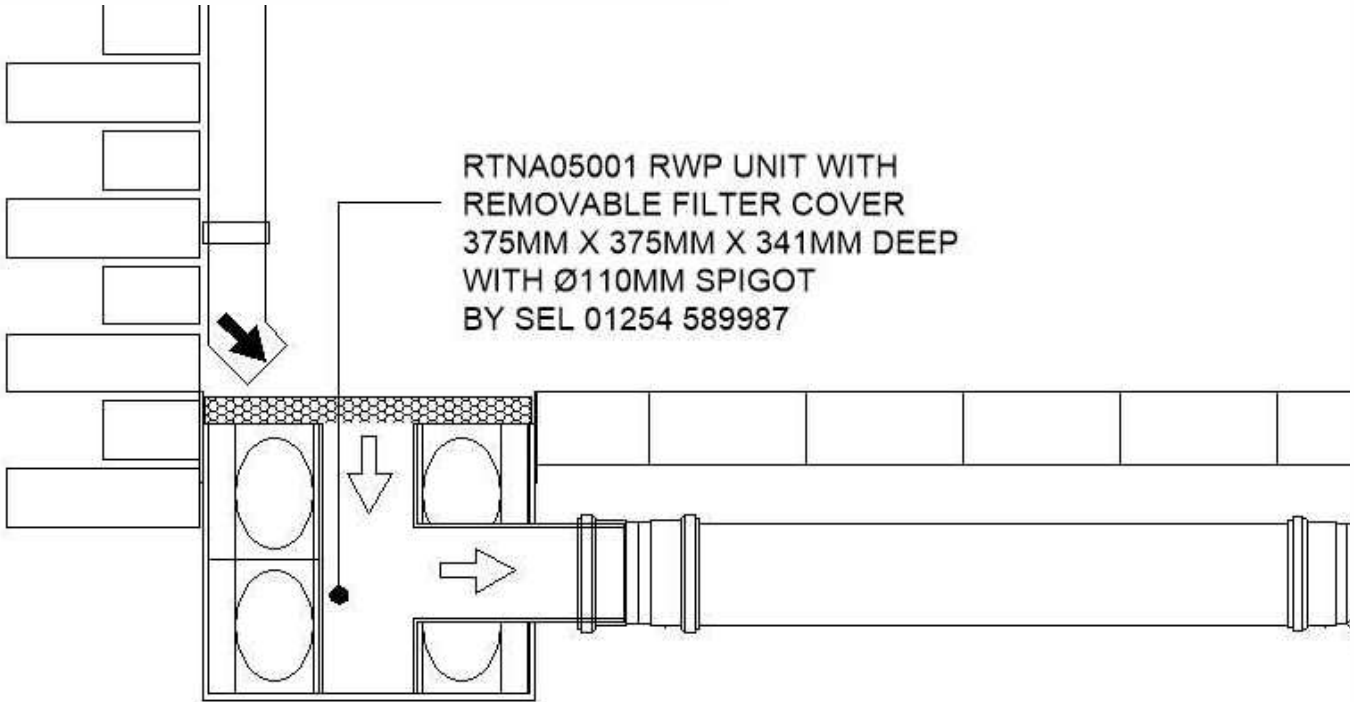
RTNA05001 Raintaina
RWP base unit with
RTNA06001 Raintaina
RWP Filter Cover





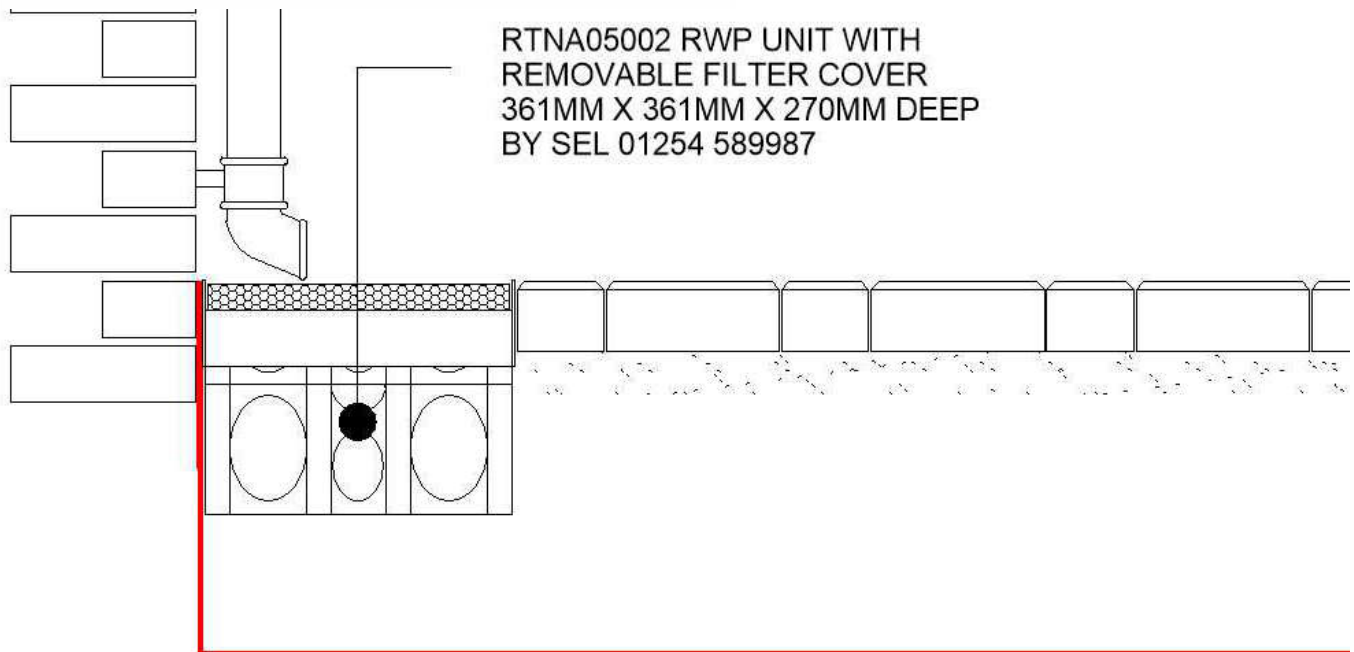
RTNA05001 Filter Unit, Standalone

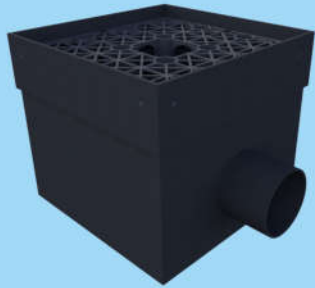
(for use outside of Permeable Paving Area)



RTNA05002 Filter Unit, Integrated

(for use inside Permeable Paving Area)

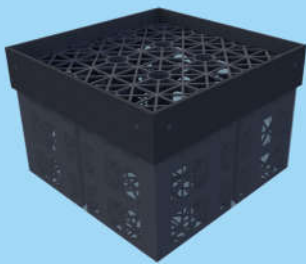




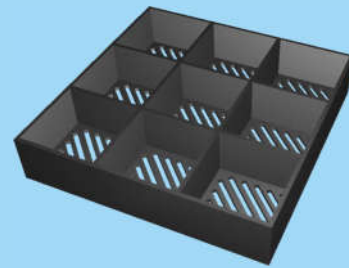
RTNA05001 Raintaina
RWP Base Unit
375mm x 375mm x 341mm deep



RTNA06001 Raintaina
RWP Filter Cover
Southern Gold Colour
(Other colours available)



RTNA05002 Raintaina
RWP Diffuser Base Unit
361mm x 361mm x 270mm deep



RTNA06050 Raintaina
RWP Filter Cover
Grid for Gravel



Permafilter Geotextile
Filter Insert
500mm x 500mm



Standard Geotextile
Filter Insert
500mm x 500mm

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Raintaina Filter Chamber for Rainwater Downpipes

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