

GRS-V Filter Installation and Specifications

WA DoH Approval F-AA-09931

Use

This model is used to filter greywater typically from a single fixture, such as one bathroom or laundry, removing any hair or lint before the effluent passes into an infiltration area. However, the filter system can be used for whole-house diversion. The filter body also incorporates a safety overflow device to direct greywater to the existing sewer or septic tank system as required. The GRS Filter should not be connected to any toilets or kitchen outlets.

Filter bags

Greywater is filtered through a commercially produced fibre filter bag (e.g. 200-300 μm nylon bag) which is able to be easily removed via two moulded handles. The bags are 250 mm long and fit tightly into a standard 150 mm DWV housing.



Figure 1. Filter bags – longer one for horizontal model, shorter one for vertical model.

The overflow device redirects wastewater from the existing system to a disconnecter gully return or directly to sewer via a reflux valve. The filter will need regular removal and cleaning, or eventual replacing if the pores become completely blocked. Cleaning should occur fortnightly, unless excessive laundry or bathroom use has occurred and cleaning may need to take place weekly. It will soon become apparent if wastewater cannot drain away through the bag after a visual inspection.

Construction

The GRS Filter is made from standard DWV fittings and pipe. The UV-stabilised 50 mm rotary valve is positioned just before the filter to enable greywater flow to the filter body to be stopped, and then redirected towards the sewer line, and this can be unscrewed if required to enable cleaning and to change the flow direction. All PVC-U pipe and fittings comply with AS/NZS 1260:2002 and carry the 'W' identification or standards endorsement.

Vertical Filter (model GRS-V)

Usually installed on external wall of house for a single fixture. Small filter bag fits inside bottom of housing. Filter body is typically fixed to wall with 150 mm stand-off saddle clip.

Emergency overflow mechanism device enables diversion of greywater to sewer/septics if filter becomes blocked



Figure 2 Layout of GRS-V Filter.

Overflow to sewer/septic system



Approximate position of bag



Figure 3. (L) Filter bag inside body. (R) Approximate position of filter bag in body.

The installation of any greywater reuse system may also have to be approved by the local government authority, and will require a formal application to be made to the Local Government. Contact the Environmental Health Officer/Inspector at your local council about their requirements and fees.

Maintenance of the GRS Filter

Cleaning and/or replacing the filter bags, and general maintenance requirements, is covered in the accompanying document "Homeowner's Guide to the GRS Filter".



Some photos of typical install – Some dripline can work under gravity but most systems are pumped to gardens.