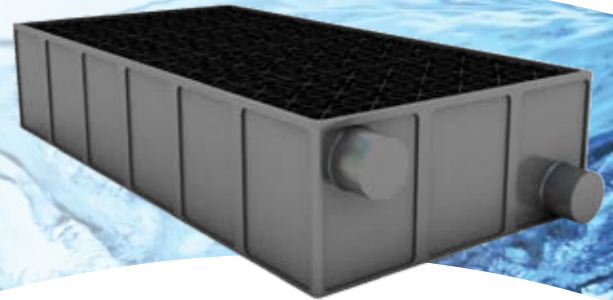


Rainwater Storage Unit

Product Code: SELH01001



Design

The Skeletank® rainwater storage unit has been developed to provide a simple and cost-effective method of collecting, storing and managing the run-off of rainwater from the roofs and hardstandings of domestic properties.

Skeletank® storage units are extremely robust, the outer shell being formed from HDPE (High Density Polyethylene) using rotational moulding techniques. This process ensures that each unit is guaranteed to be fully watertight.

The HDPE material used to form the outer shell of Skeletank storage units contains a percentage of recycled material.

Skeletank® storage units are manufactured in the United Kingdom.

Storage Capability

Each Skeletank® storage unit has a storage capacity of 300 litres. Storage volumes can be increased by linking together multiple units using standard 110mm diameter PVC-u drainage pipework and fittings. This offers designers significant flexibility and thus the opportunity to provide bespoke designs for individual properties.

Standard Connectivity

Each Skeletank® storage unit has 2no. 110mm diameter spigots, one at invert level and the other at soffit level (normally only the invert level connection is required). These spigots are sized to fit standard 110mm diameter PVC-u underground drainage pipe and fittings. The inlet/outlets are sealed during the manufacturing process.

During installation it is necessary to remove the first 10mm from the spigot before connecting pipework. A standard fine toothed handsaw will be suitable. Ensure any plastic burrs are removed using a file or coarse sandpaper.

Inner Strength allows Shallow Installation

Skeletank® storage units are the ONLY load bearing rainwater storage tanks. They can withstand loads of up to 70kN/m². This means that they can be installed directly below the surface of a driveway or patio with a minimum of 150mm cover.

The inner section of each Skeletank® unit comprises 8 Charcon Permavoid® HD sub-base replacement modules. Charcon Permavoid® HD is a unique and patented system for the replacement of sub-base below both pervious and impervious surfacings. It is fully compliant with the requirements of BS7533-13:2009 Annex B, 'Typical physical properties of replacement systems (geo-cellular) units'

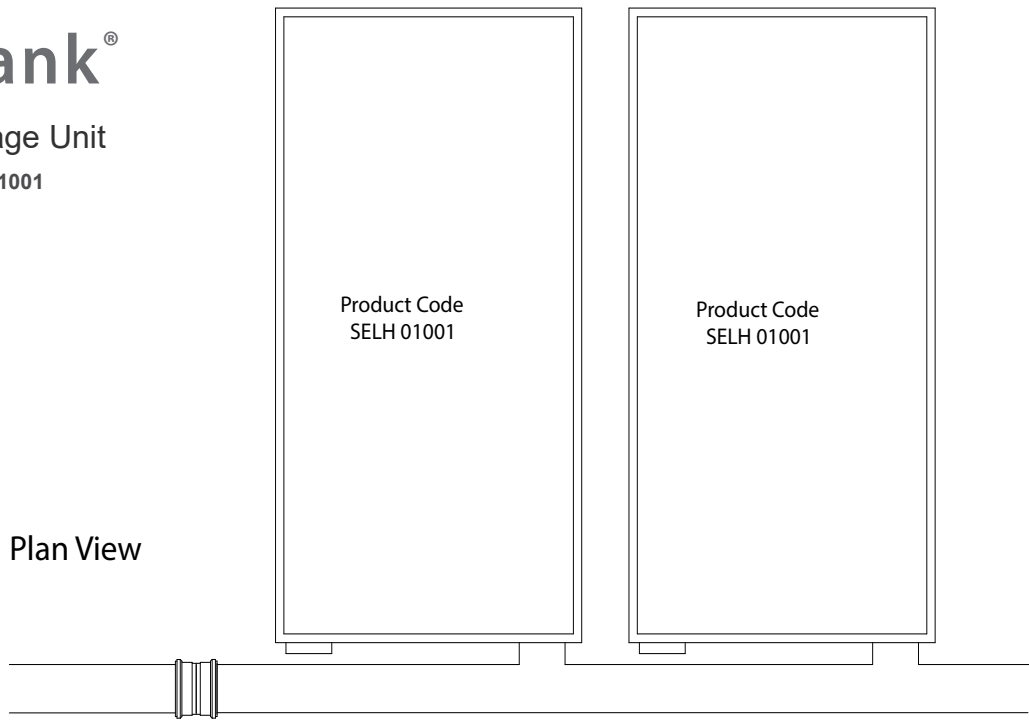
Each Skeletank® unit is supplied with a piece of geotextile, to be laid over the top of the storage unit before backfilling with aggregate or topsoil. The geotextile allows the storage units to breathe and prevents air locks from forming. In addition, if the surfacing of the hardstanding is pervious then rainwater run-off can permeate directly into the underground units.

Element	Dimensions
Length	1450mm
Width	735mm
Height	315mm
Properties	Specification
Weight	35kg
Spigot diameters	110mm
Load bearing capacity	70kN/m ²
Rainwater storage capacity	300 litres
Material	HDPE / PP

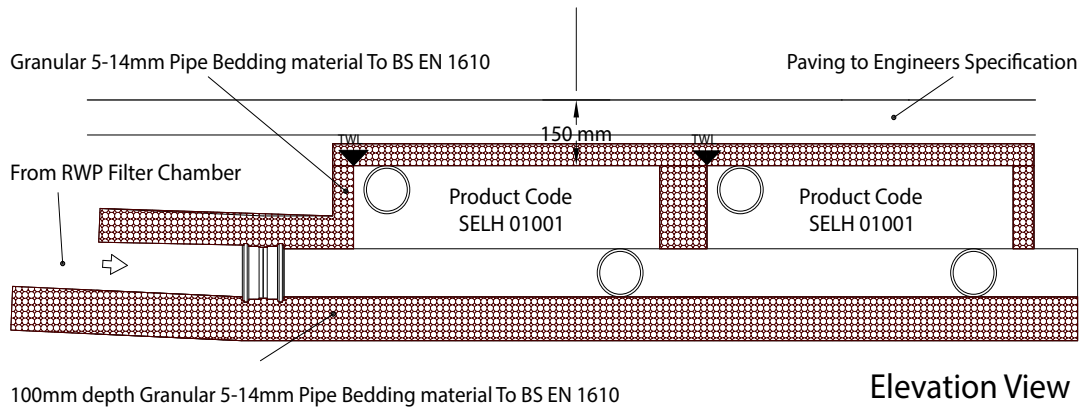
Skeletank[®]

Rainwater Storage Unit

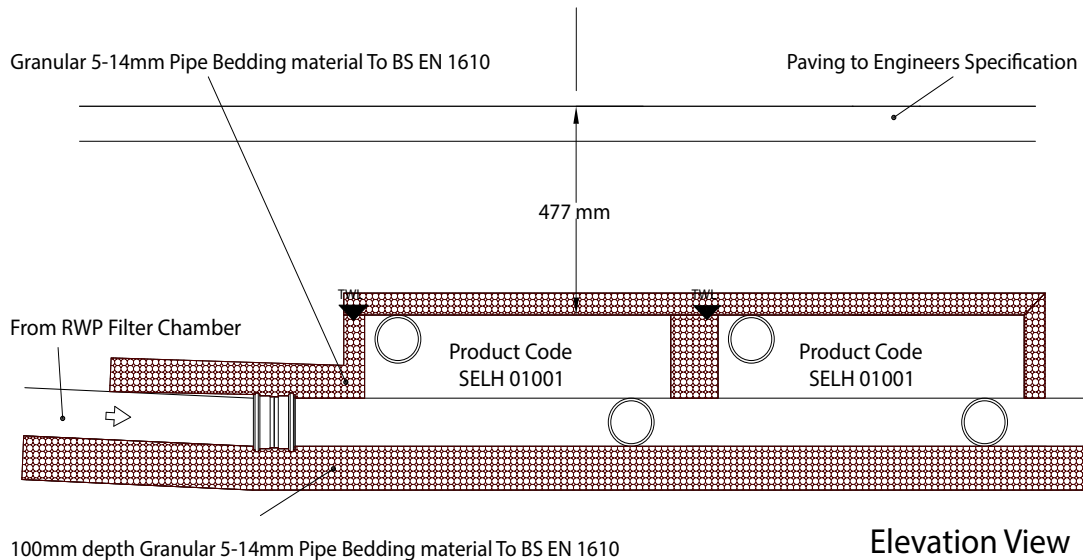
Product Code: SELH01001



Skeletank Attenuation Units With Minimum Cover



Skeletank Attenuation Units With Maximum Cover



Skeletank® Installation Guidelines

Setting Out

Set out the position of the RWP Filter Chambers and Skeletanks® in accordance with the Contract Drawings.

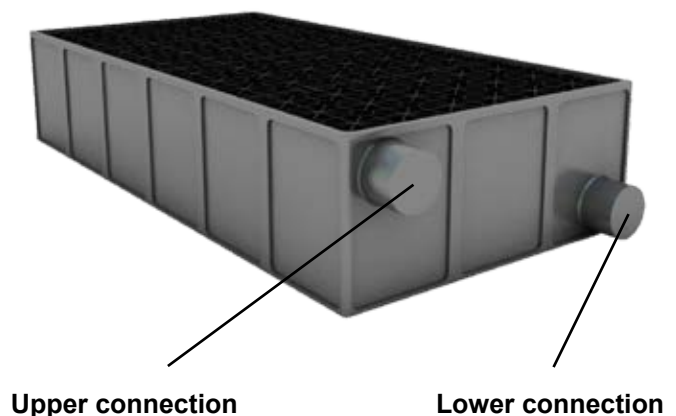
Preparation & Installation of the Skeletanks®

1. Excavate to formation level allowing for a minimum of 100mm for the Granular bedding material.
2. Place the bedding material ensuring that it is perfectly level in all directions. It is recommended that that screed rails be used for this purpose.
3. Once the bedding material is levelled avoid walking over it.
4. Trim the lower connection (see diagram Skeletank® connections) on the Skeletank® unit, lubricate the spigot and fit a 110mm x 110mm Square Junction ensuring the connection is fully home.
5. Cut a section of 110mm Ø Pipe to the required length and fit into the Square Junction ensuring the connection is fully home.
6. Place a Skeletank® at the required location.
7. Repeat the exercise until all of the Skeletanks® have been positioned correctly.
8. Using a spirit level check that the Skeletanks® are level with each other.
9. Once the Skeletanks have been installed and are connected to the relevant Chambers place the supplied panel of Geotextile over the Skeletanks® and place shovelfuls of the bedding stone on the geotextile to hold in place whilst backfilling is carried out, it is essential that no stone is allowed to get into the Skeletanks®
10. Backfill in between the Skeletanks® with the bedding stone ensuring that it is carefully compacted without disturbing the Skeletanks®, continue backfilling over the Skeletanks® with a minimum of 50mm depth of bedding stone. This layer also acts as a ventilation layer.
11. The top spigot connection of the Skeletank® can also be used for ventilation if required.
12. continue backfilling over the Skeletanks® with a minimum of 50mm depth of bedding stone. This layer also acts as a ventilation layer.
13. The top spigot connection of the Skeletank® can also be used for ventilation if required.

Preparation and Installation of the Chambers

1. Set out the location of the chambers
 - Rainwater Filter Chamber
 - Skeletank® Mini Flow Control Chamber
 - Skeletank® catchpit
2. Excavate to the required depth, set the chambers on a bed of concrete in accordance with the standard detail drawing. The chambers are supplied with a secondary cover; this cover must be left in place during construction to prevent any debris i.e. Stone, mortar, bricks etc falling into the chamber. It is recommended that this cover be left in place when the brickwork and final choice of cover & frame has been fixed. Before completion ensure that the secondary cover is not trapped by mortar and can easily be removed.
3. If it is necessary to reduce the height of the chamber, remove the secondary cover, cut the chamber to the required height and replace the secondary cover before installation.
4. Connect the pipe work using standard underground pipes and fittings.
5. Backfill in accordance with the standard detail drawing or specific Contract requirements.

Skeletank® connections



Referenced products:

- SELH 01001 - Skeletank® Rainwater Storage
- SELH 03001 - Controflow® Miniflow Control Chamber
- SELH 03002 - RWP filter Chamber
- SELH 03003 - 315mm Ø Catchpit 110
- SELH 03004 - 315mm Ø Catchpit 110/160
- SELH 04001 - 315mm Ø Catchpit 160
- SELH 05001 - Hydro WMS Geomembrane
- SELH 05002 - Hydro WMS Permatex HD 300 Geotextile
- SELH 05003 - Hydro WMS Permafilter Geotextile

For Specification Data Sheets See www.skeletank.co.uk

Additional Materials

- Granular 5mm -14mm Graded Pipe Bedding Material to BS EN 1610
- Gen 3 Concrete to BS 8500-1
- 110mm Ø Standard Underground Drainage
- 110mm Ø x 110mm Ø Square Junctions
- 110mm Ø Standard Couplings
- Pipe lubricant

Health & Safety

1. Before any Construction takes place a Full Risk Assessment and preparation of a Method Statement must be carried out.
2. Check for underground services prior to excavation and all trenches should be shored where necessary

Disclaimer

This product specification is neither giving nor implying warranty for the use of this information for design and installation, as these are beyond our control. The data provided is typical and based upon the mean values obtained from the samples taken for any one test. If not otherwise indicated the test procedures reflect usually the mean of five samples. Skeletank Limited reserve the right to change the specifications without prior notice. Skeletank® is a trade mark registered by Skeletank Limited.

Hydro WMS

Office 13, Bracondale House , 141 Buxton Road
Stockport, Cheshire, SK2 6EQ

T: 0161 456 3476 | F: 0161 4565 820
E: skeletank@hydro-wms.co.uk | www.skeletank.co.uk