

Excavation to comply with the size and depth of the tank proposed.
Excavation area to be smooth, firm and level, free from lumps and debris and suitable to carry anticipated loads.

Lay min. 80mm bed of single size (8mm to 16mm) gravel, level ($\leq 1^\circ$) and even.

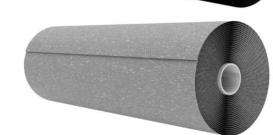
Excavate to a safe batter (or stepped) to suit surrounding ground and depth. max height of vertical sides to be 1.2m

Lay the geotextile on the base of the excavation.

Lay the membrane on top of the geotextile over the base and up the sides of the trench.

Geomembrane:
1mm Thick LLDPE Geomembrane with a density of at least 0.939g/m².

Geotextile:
300g/m² Non-woven, needle punched geotextile



Geomembranes and Geotextiles with characteristics less than those specified are unlikely to be suitable and are therefore not recommended for use with Graf UK systems for this application

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DO NOT SCALE - IF IN DOUBT ASK

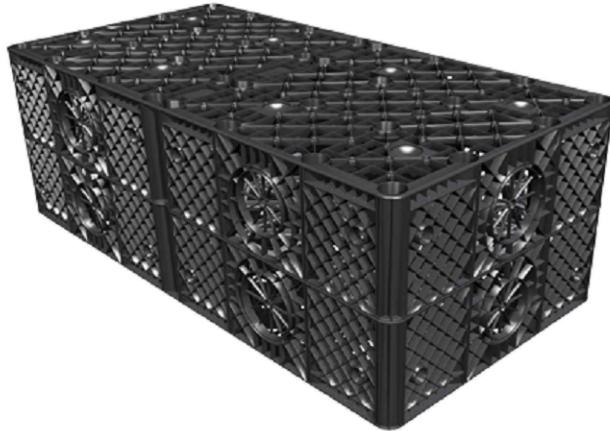
Notice: This drawing is issued only as a guideline and is an estimate of the materials required to construct the drainage system, it should not be used for construction purposes.

Graf UK Ltd makes no warranty or guarantee in relation to the suitability of any of the layout details shown on this drawing in relation to a particular scheme.

INSTALLATION METHOD:-

- Excavate the trench with a safe batter (or stepped) ensuring the footprint allows for sufficient space between tank and the sides. (minimum 500mm around all sides of the tank).
 - Mark out the position of the tank including inlets and outlets.
 - Lay min. 80mm of single sized non angular stone (8 to 16mm) as a base for the tank. This can be laid to a maximum fall of 1°.
- Lay the Geotextile on the base of the excavation, overlapping any joins by a minimum of 300mm
 - Lay the Geomembrane on top of the Geotextile over the base and up the sides of the trench.
 - Membrane must be joined by thermal fusion heated wedge welding. It is recommended that the Dual Seam method is used as this generates an unwelded channel which can be pressured with air to check the integrity of the weld.
 - The membrane and geotextile used must meet the specification stated on the drawing.
- Place the first layer of crates until complete ensuring clips are used to secure each crate.
 - Continue building the tank up until all crates have been installed to the dimensions specified, project specific.
- Fix adaptor plates to the sides of the crates in the required position for the inlet and outlet pipes.
 - Cut a hole in the geomembrane and pull up over the adaptor plate sealing the membrane around the spigot of the adaptor plate.
 - Pull membrane up around the sides and fully wrap the crates, securing the lid in place by heated wedge welding to the side panels.
 - Wrap and overlap the geotextile covering the entire tank to protect the geomembrane.
 - Install vent pipe connection into the top of the tank at a suitable location.
 - Backfill around the tank and for 100mm above with non-angular stone. Backfill to finished ground level with suitable material in layers.
 - Connect inlet/outlet pipes using appropriate bandseals.
 - In order to prevent silt from entering the tank it is recommended that silt traps or catchpit manholes are installed upstream of any inlet. These should be regularly maintained to avoid the buildup of any silt.

N.B. Installation method may vary depending on depth of the tank and is project specific. For more information or technical questions please contact our Technical Department at Graf UK.



RAIN BLOC CRATE

(Drawing for illustrative purposes only)

P1	LATEST REVISION	DB	19.08.19
REV.	DESCRIPTION	BY	DATE

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DRAWN : DB	DATE : 05.10.18
CHECKED : MC	SCALE : VARIOUS@A3

PROJECT	GRAF STANDARD DETAILS
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DESCRIPTION	ATTENUATION TANK using GRAF ECOBLOC RAIN BLOC
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DRAWING No.	REV.
STANDARD DETAIL.RAIN BLOC.P2	