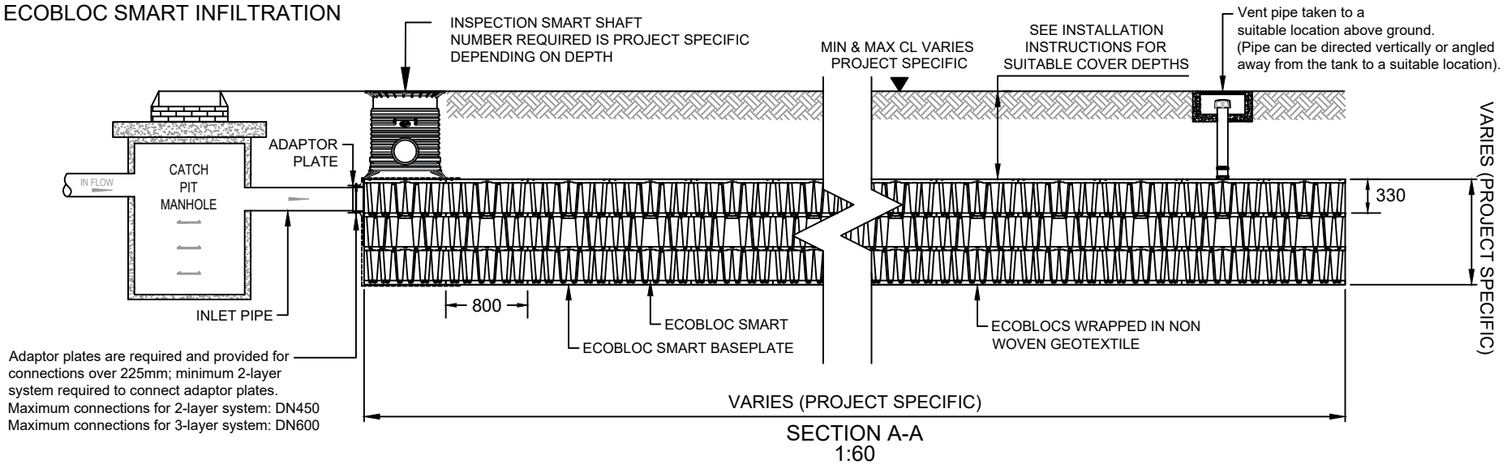
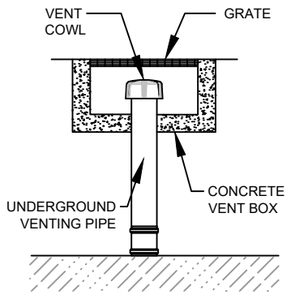
ECOBLOC SMART INFILTRATION



Adaptor plates are required and provided for connections over 225mm; minimum 2-layer system required to connect adaptor plates.
Maximum connections for 2-layer system: DN450
Maximum connections for 3-layer system: DN600

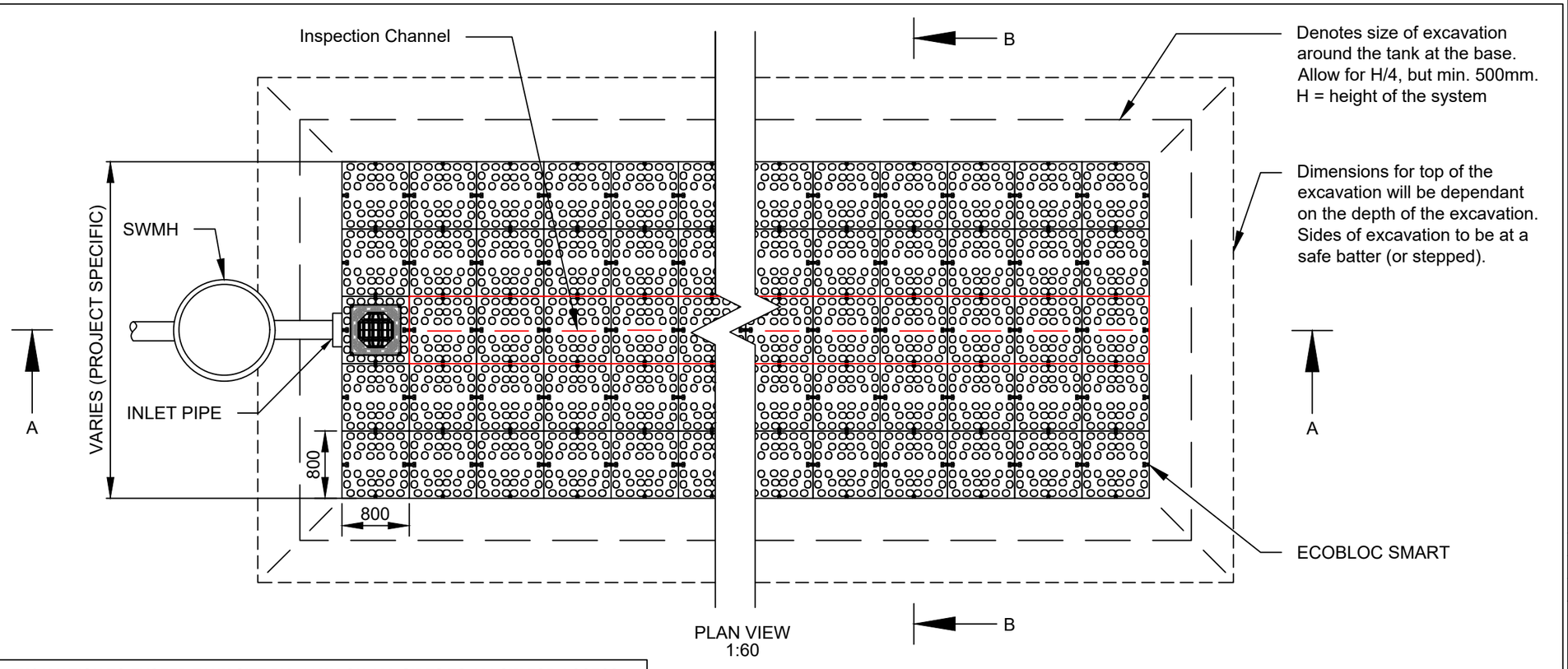
SECTION A-A
1:60

VENT DETAIL



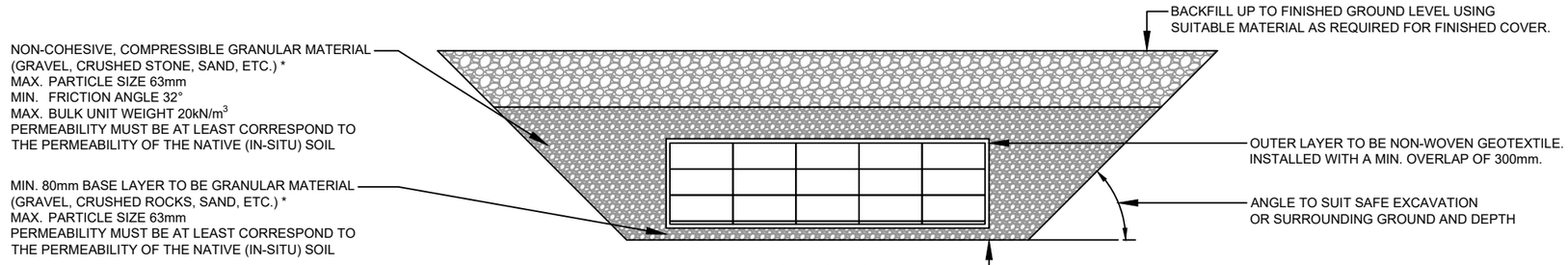
1:25

NB. The infiltration tank must be vented to a suitable location above ground and it is recommended to have one Ø110mm vent pipe for every 7,500m² of impermeable catchment area.



PLAN VIEW
1:60

NOTE: EXCAVATION TO EXCEED TANK SIZE BY 500MM ON ALL SIDES TO ALLOW FOR ACCESS



SECTION B-B
1:75

* Cohesive soils (loam/clay, etc.) are NOT suitable backfilling materials.
Please contact GRAF Technical Department for more details on installation in cohesive soil conditions.

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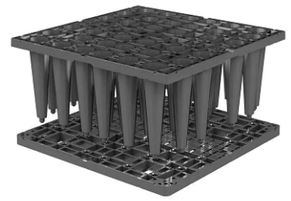
ECOBLOC SMART



	Ecobloc	Baseplate
Dimensions (mm)	800 x 800 x 330	800 x 800 x 40
Gross Volume	0.211m³	0.024m³
Net Volume	0.203m³	0.021m³
Material	Polypropylene	Polypropylene
Weight	9.9kg	4.2kg
Void Ratio	>96% depending on number of layers	
Inspectable	Yes	

Comply to load requirements of AS5100. For further information, see installation instructions.

REV.	DESCRIPTION	BY	DATE
2		AW	10.09.2024
1		MV	13.09.2022

GRAF Australia Pty Ltd
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DRAWN : AW DATE : 10.09.2024
CHECKED : KH SCALE : VARIOUS@A3

PROJECT
GRAF STANDARD DETAILS

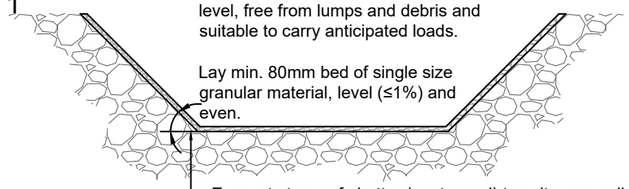
DESCRIPTION
INFILTRATION TANK
using GRAF ECOBLOC SMART &
SMART SHAFT

DRAWING No. DWG-357 REV. 2 (Pg.1)

1

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.

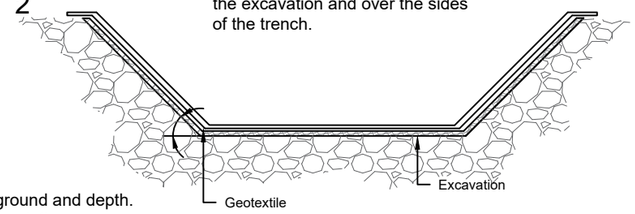
Lay min. 80mm bed of single size granular material, level (≤1%) and even.

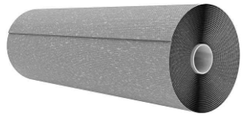


Excavate to a safe batter (or stepped) to suit surrounding ground and depth.
Maximum height of vertical sides to be according to local regulations.

2

Lay the geotextile on the base of the excavation and over the sides of the trench.



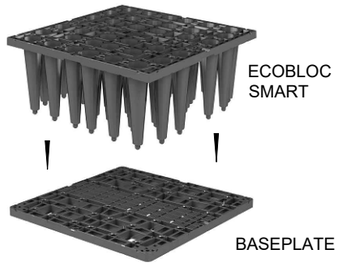


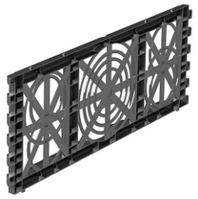
Geotextile:
150g/m² Non-woven

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

Assemble EcoBloc Smart module and Baseplate as shown below.

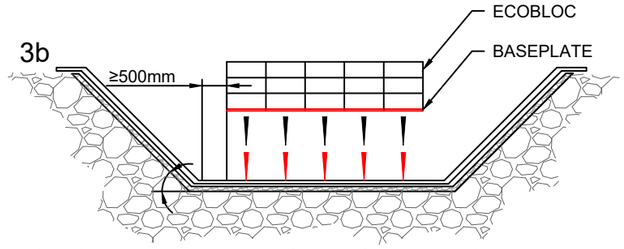
3a





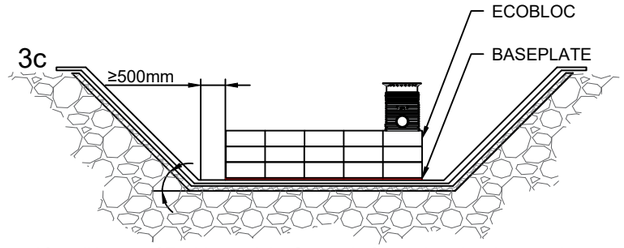
ENDPLATE

3b



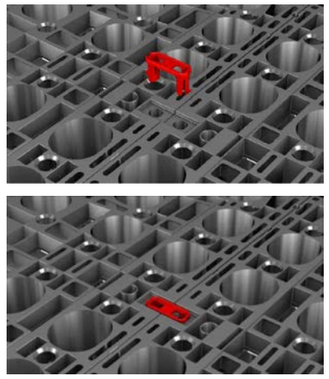
Place the already assembled EcoBloc and Baseplate directly on the geotextile securing them with connectors. Make sure the Smart shaft is the correct position for inspection.

3c

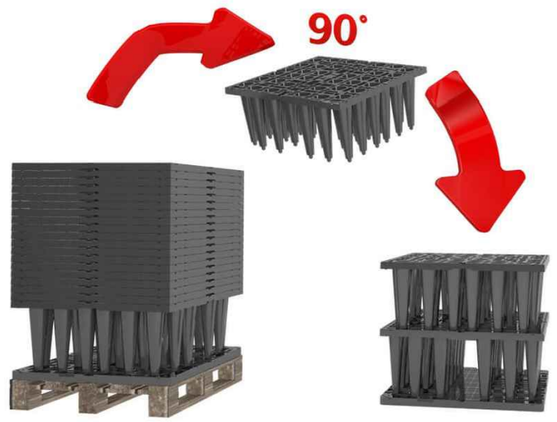


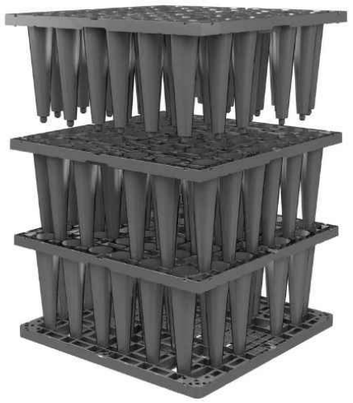
After all layers of Ecobloc and the Smart shaft are placed and secured, install the Endplate. Endplate are clipped to the tank where it is required.

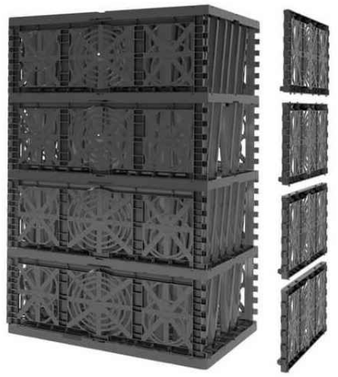
Before installing the next layer, ensure that the connector clips are clipped locking the Ecobloc together.

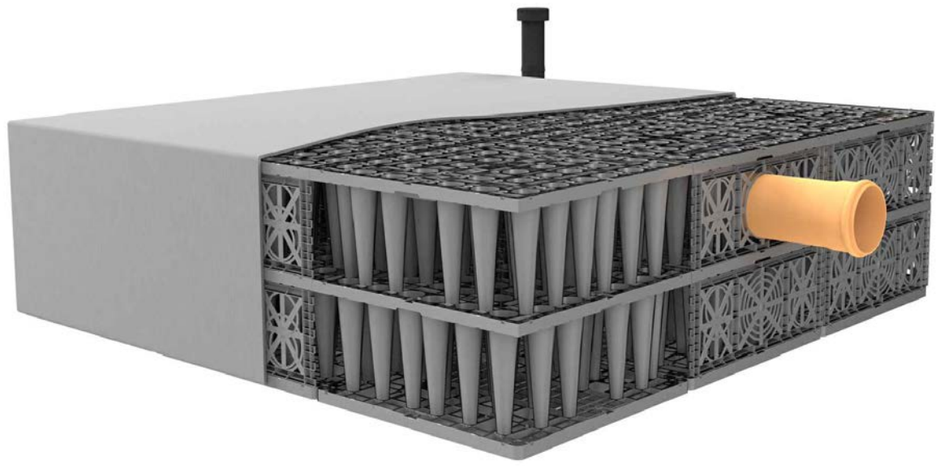


Connector clips are Red for illustration purposes only and are Grey in colour



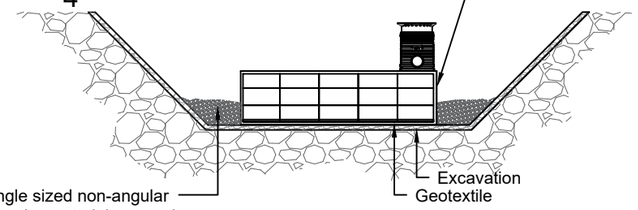






Finally, wrap the blocs with the geotextile.

4



Single sized non-angular granular materials around sides of tank
(Refer to Section B-B)
300mm layer increments backfilling around the tank should be brought up evenly around all sides

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INSTALLATION METHOD:

1. a) Excavate the trench with a safe batter (or stepped) ensuring the footprint allows for sufficient space between tank and the sides (height of the system divided by 4, but at least 500mm around all sides of the tank).
   b) Mark out the position of the tank including pipe connections.
   c) Lay min. 80mm of single sized non-angular granular material (max. 63 mm) as a base for the tank. This can be laid to a maximum fall of 1%.

2. a) Lay the geotextile over the base of the excavation and up the sides of the trench, overlapping any joins by a minimum of 300mm.
   b) The geotextile used must meet the specification stated on the drawing.

3. a) Assemble EcoBloc Smart and Baseplate, position leg ends into corresponding holes in the Baseplate. The bloc will only fit in the correct orientation. Push down firmly to ensure the EcoBloc is located correctly. Assemble the row of EcoBloc Smart with Baseplate where inspection run is required. If Smart shaft is included within the tank, ensure that the Smart shaft base is in correct position.
   b) Install already assembled EcoBloc Smart and Baseplate onto the geotextile until the first layer is complete. Insert retaining clips into each adjacent bloc.
   c) Check and ensure that the row of EcoBloc Smart is in the correct located position where inspection run is required.
   d) To install the next layer of bloc, remove from the stack and turn 90° and position directly above the bloc below. Push down firmly to ensure the bloc is located correctly.
   e) Continue until all EcoBloc Smart have been installed, ensuring clips are used to secure each bloc.
   f) Fit Endplate to the sides of each bloc by positioning the bottom in place then pushing firmly on the top section.

4. a) Fix adaptor plates to the sides of the bloc in the required position for the pipe connections if required.
   b) Cut a hole in the geotextile for pipe connections.
   c) Pull geotextile up around the sides and fully wrap the bloc, securing the top in place.
   d) Install vent pipe connections into the top layer of the tank and direct to suitable locations.
   e) Backfill around the tank in 300mm layer increments using non-cohesive, compressible granular material (gravel, crushed rock, sand, etc. with max. particle size of 63mm). The backfill should be brought up evenly around all sides.
   f) It is recommended that stormwater treatment system or pre-filtration is installed upstream of the tank to reduce debris, silt, etc. entering the tank to sustain infiltration performance. These should be regularly maintained.

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 Australia Pty Ltd.

REV.	DESCRIPTION	BY	DATE
2		AW	10.09.2024
1		MV	13.09.2022

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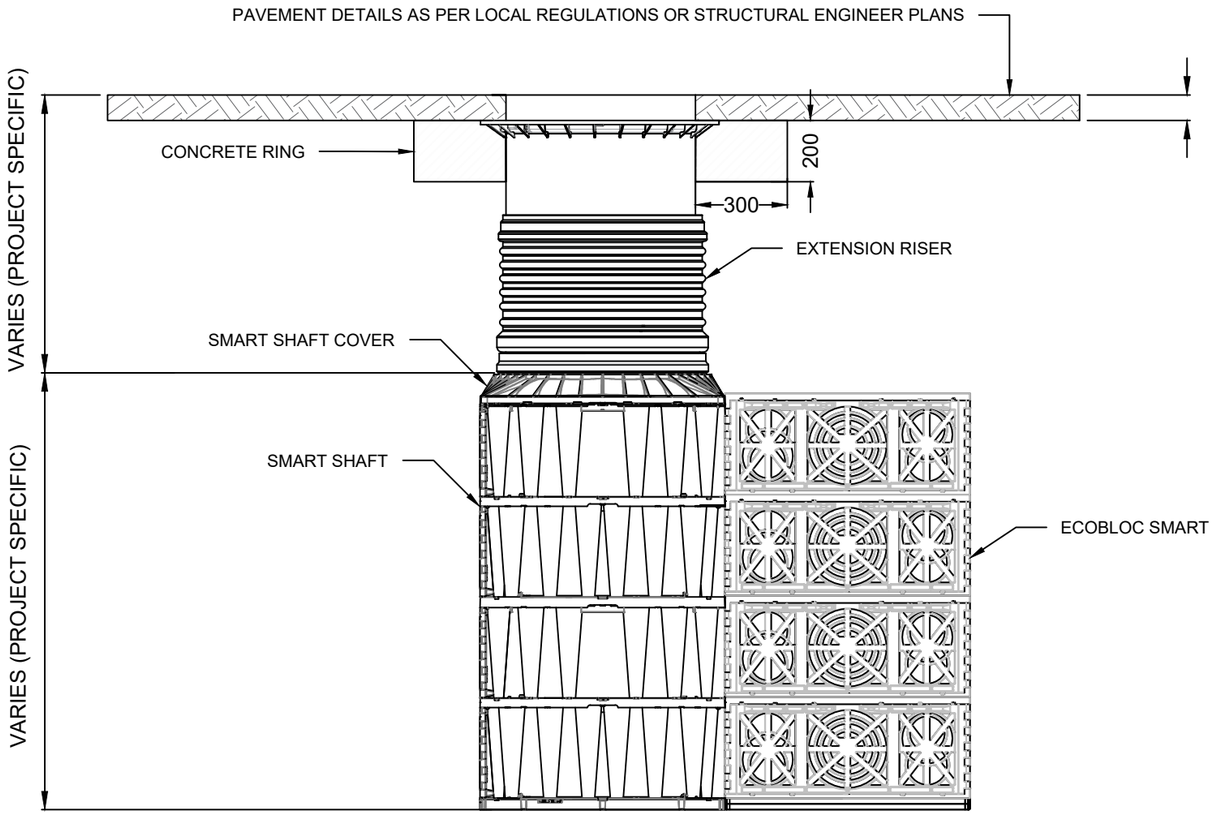
DRAWN : AW DATE : 10.09.2024
CHECKED : KH SCALE : VARIOUS@A3

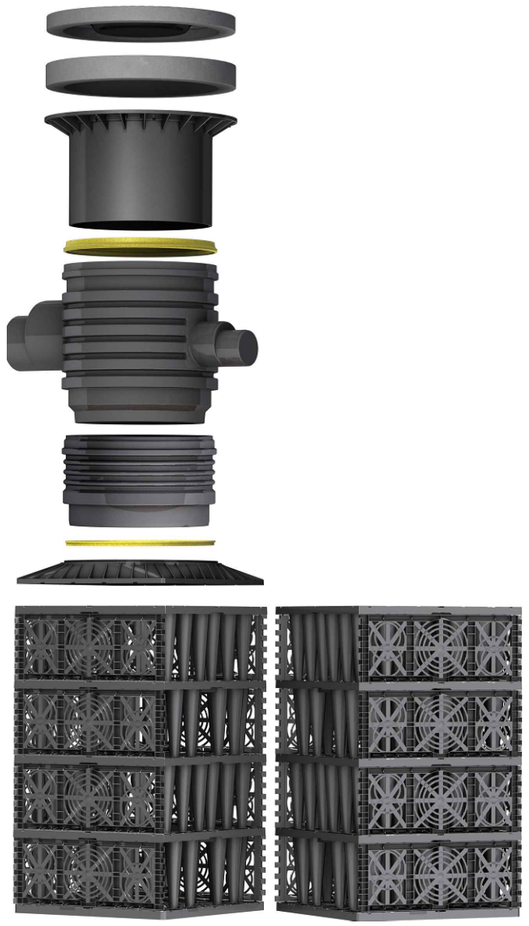
PROJECT
GRAF STANDARD DETAILS

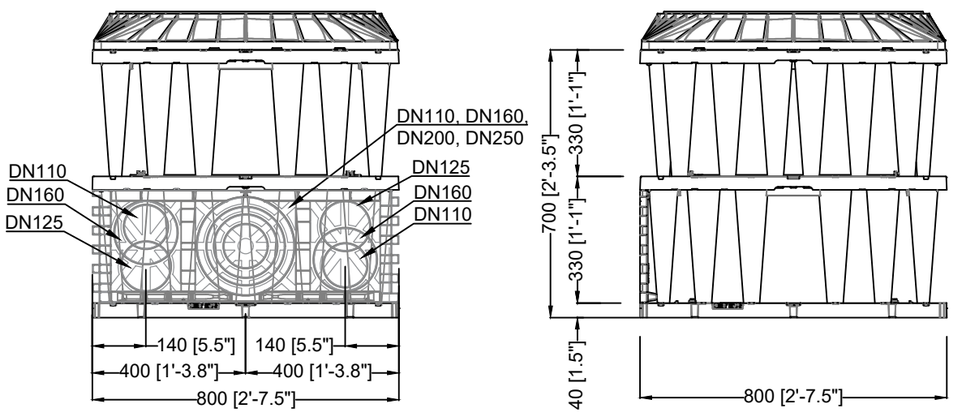
DESCRIPTION
INFILTRATION TANK
using GRAF ECOBLOC SMART & SMART SHAFT

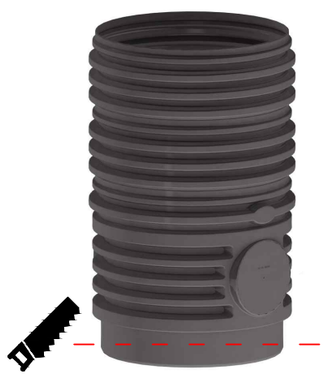
DRAWING No. DWG-357 REV. 2 (Pg.2)



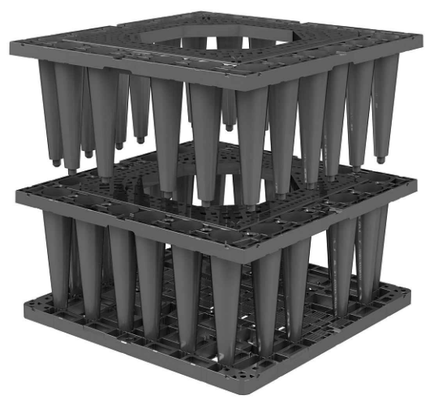
EXTERNAL VIEW







To avoid riser hitting the top of Ecobloc Smart, cut 90mm as above.



Smart shaft is modular and easily to assemble in a push fit manner.

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SMART SHAFT

Dimensions (mm)	800 x 800 x 330
Gross Volume	0.211m³
Net Volume	0.203m³
Weight	8.5kg

SMART SHAFT BASE PLATE

Dimensions (mm)	800 x 800 x 40
Gross Volume	0.024m³
Net Volume	0.021m³
Weight	4kg

SMART SHAFT COVER PLATE

Dimensions (mm)	800 x 800 x 100
Weight	5kg

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PROJECT
GRAF STANDARD DETAILS

DESCRIPTION
INFILTRATION TANK
using GRAF ECOBLOC SMART & SMART SHAFT

DRAWING No. DWG-357 REV. 2 (Pg.3)