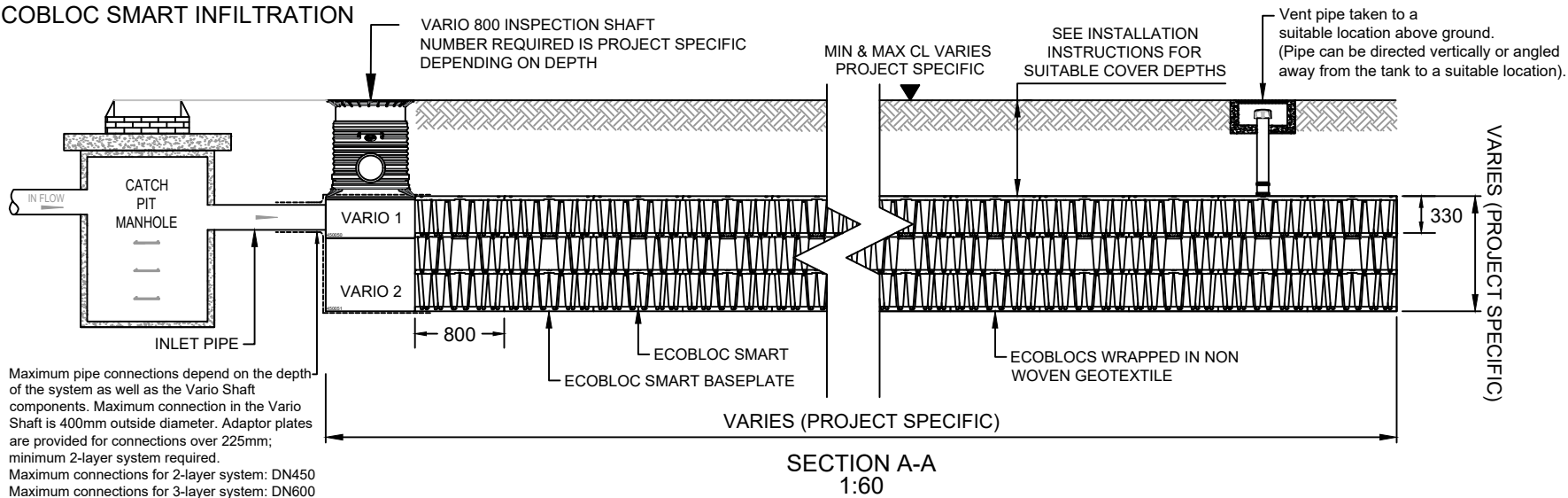
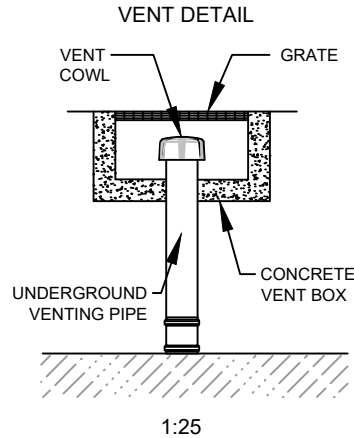


ECOBLOC SMART INFILTRATION



Maximum pipe connections depend on the depth of the system as well as the Vario Shaft components. Maximum connection in the Vario Shaft is 400mm outside diameter. Adaptor plates are provided for connections over 225mm; minimum 2-layer system required.
Maximum connections for 2-layer system: DN450
Maximum connections for 3-layer system: DN600



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.

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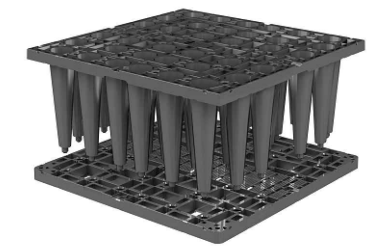
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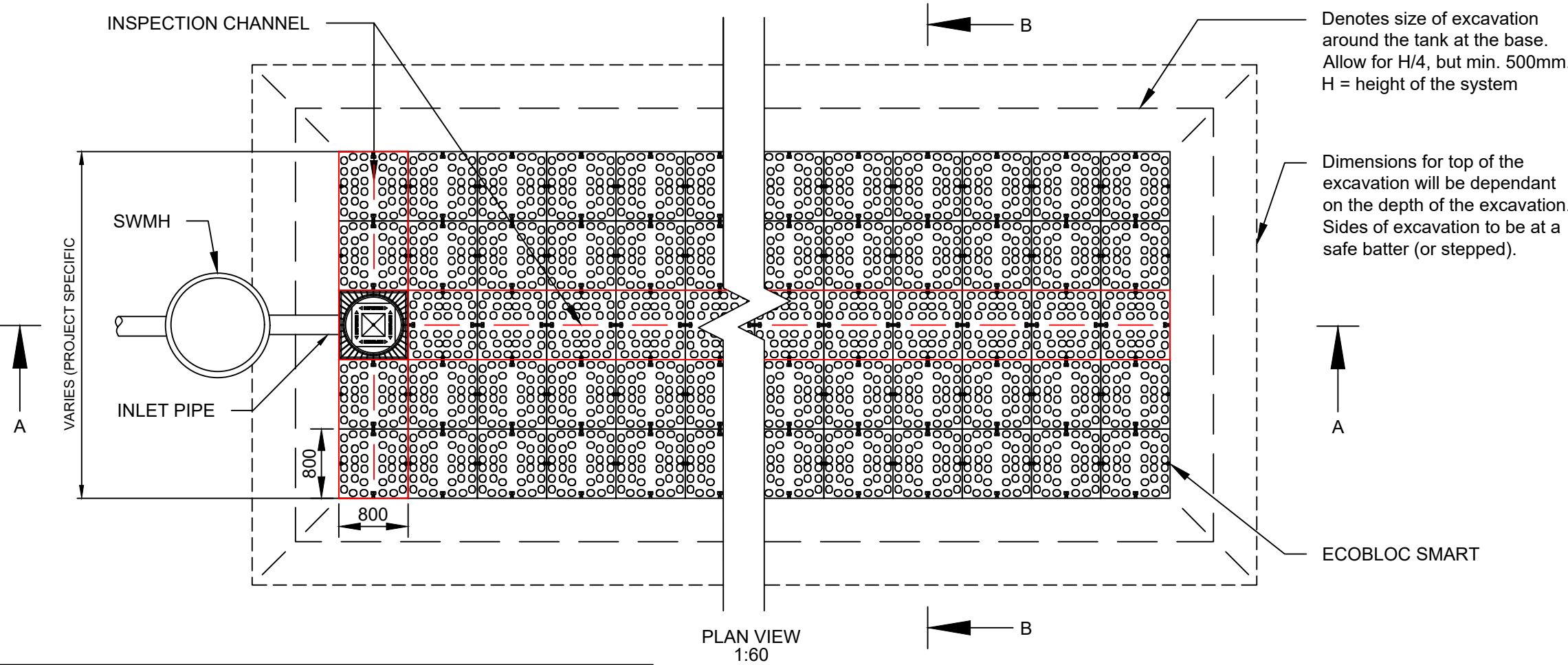
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ECOBLOC SMART



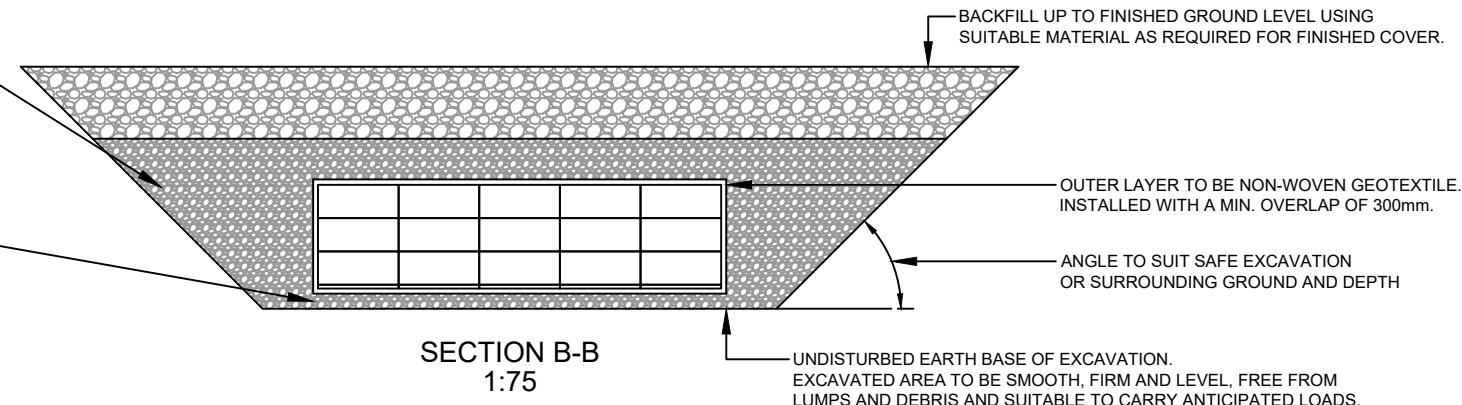
	Ecobloc	Baseplate
Dimensions (mm)	800 x 800 x 330	800 x 800 x 40
Gross Volume	0.211m³	0.024m³
Net Volume	0.203m³	0.021m³
Material	Polypropylene	Polypropylene
Weight	9.9kg	4.0kg
Void Ratio	>96% depending on number of layers	
Inspectable	Yes	
Comply to load requirements of AS5100. For further information, see installation instructions.		



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

NON-COHESIVE, COMPRESSIBLE GRANULAR MATERIAL (GRAVEL, CRUSHED STONE, SAND, ETC.) *
MAX. PARTICLE SIZE 63mm
MIN. FRICTION ANGLE 32°
MAX. BULK UNIT WEIGHT 20kN/m³
PERMEABILITY MUST BE AT LEAST CORRESPOND TO THE PERMEABILITY OF THE NATIVE (IN-SITU) SOIL

MIN. 80mm BASE LAYER TO BE GRANULAR MATERIAL (GRAVEL, CRUSHED ROCKS, SAND, ETC.) *
MAX. PARTICLE SIZE 63mm
PERMEABILITY MUST BE AT LEAST CORRESPOND TO THE PERMEABILITY OF THE NATIVE (IN-SITU) SOIL



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

2		AW	10.09.2024
1		MV	13.09.2022
REV.	DESCRIPTION	BY	DATE

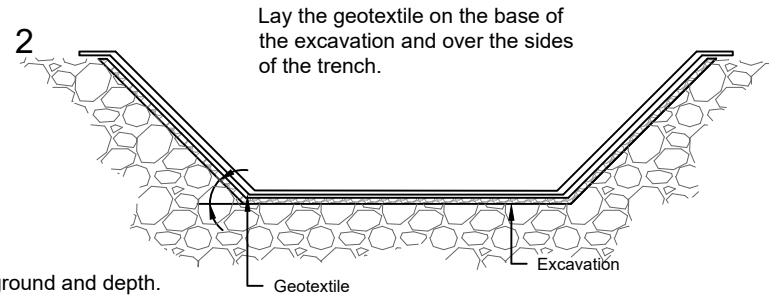
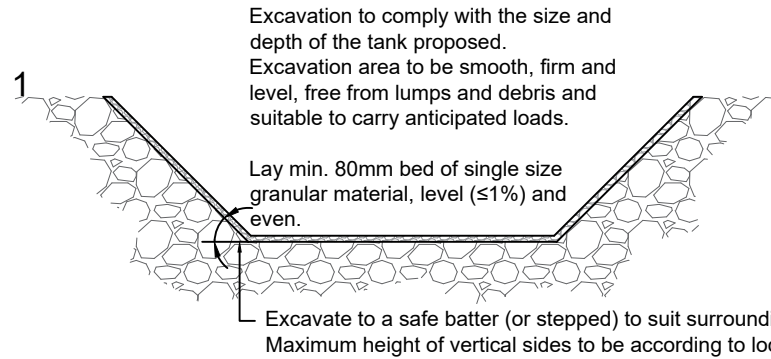
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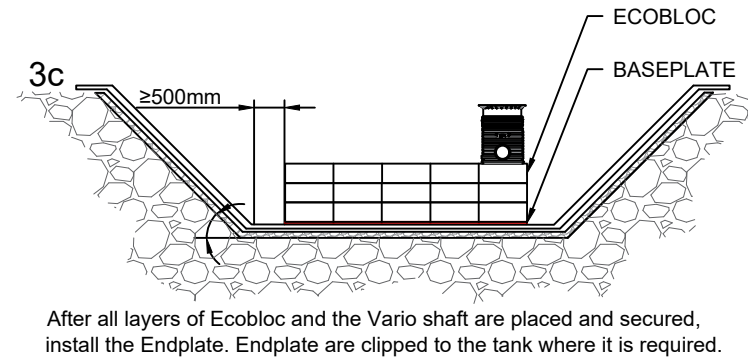
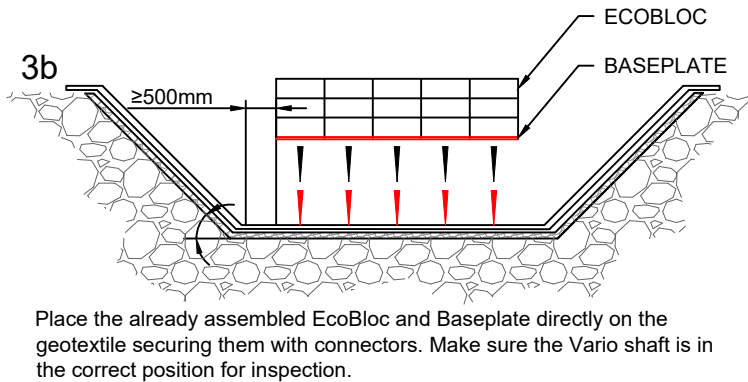
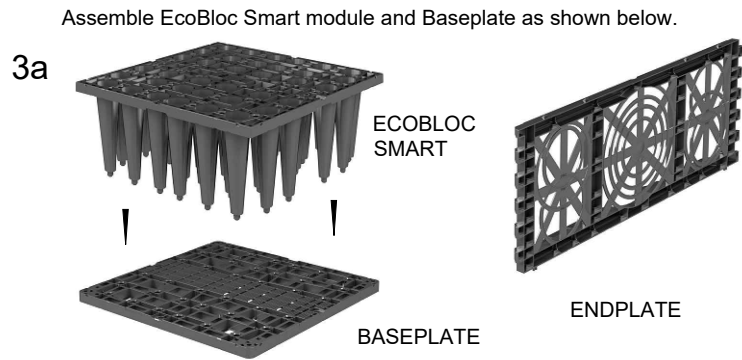
DRAWN :	AW	DATE :	10.09.2024
CHECKED :	KH	SCALE :	VARIOUS@A3

PROJECT	GRAF STANDARD DETAILS
DESCRIPTION	INFILTRATION TANK using GRAF ECOBLOC SMART & VARIO SHAFT
DRAWING No.	DWG-355
REV.	2 (Pg.1)

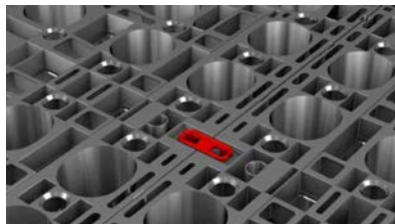
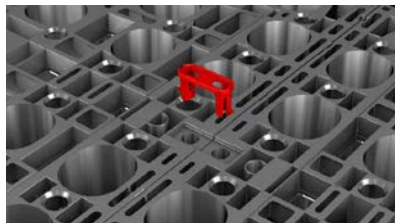


Geotextile:
150g/m² Non-woven

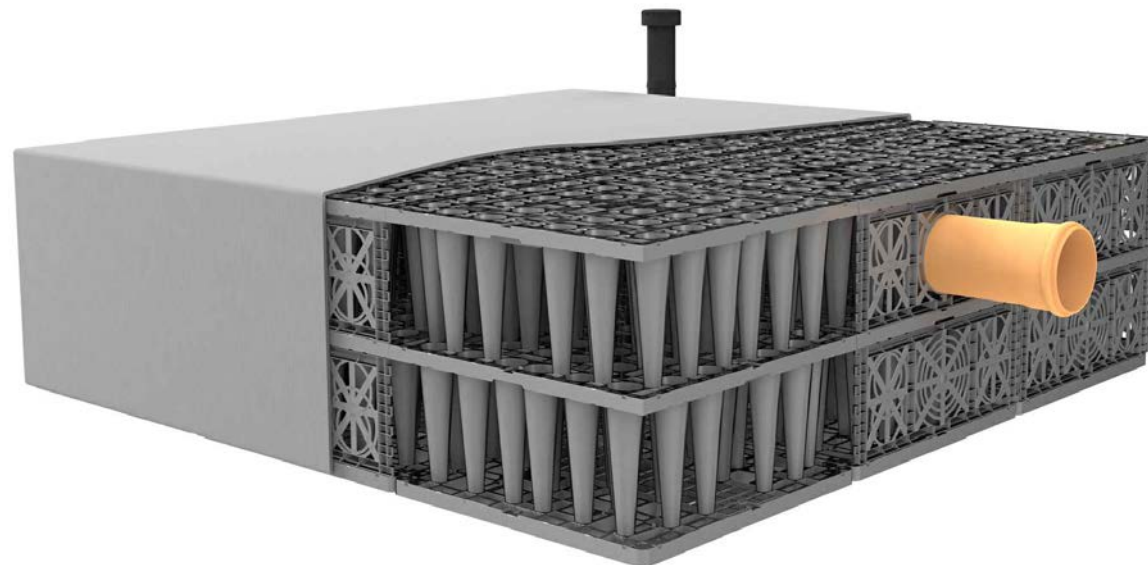
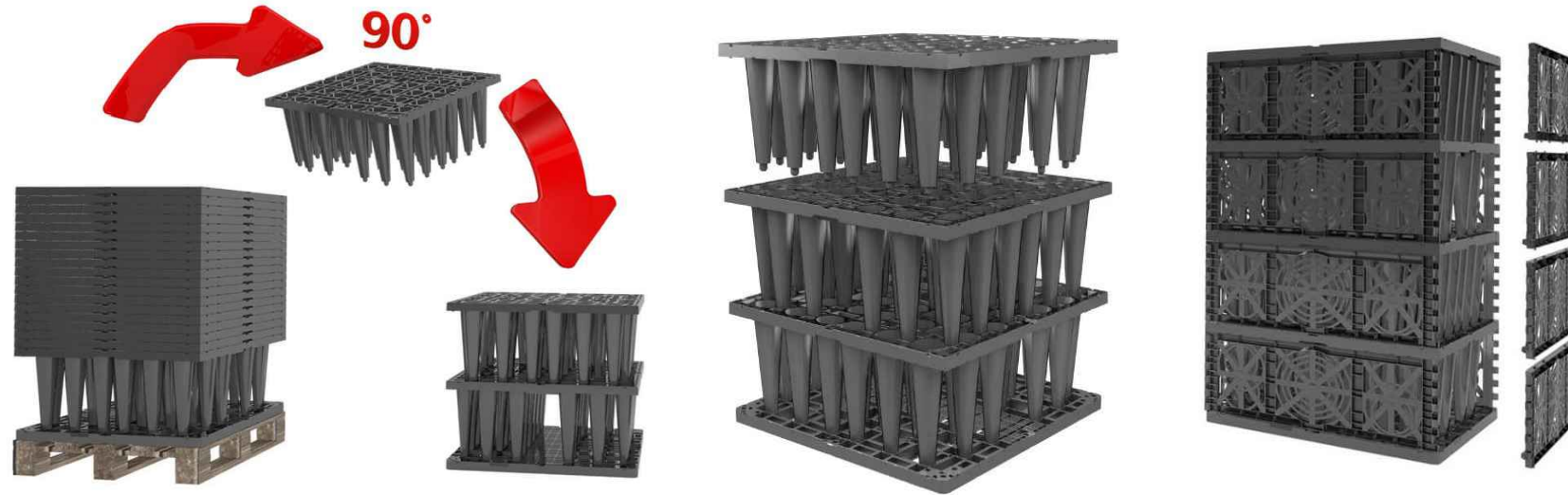
Geotextiles with characteristics less than those specified are unlikely to be suitable and are therefore not recommended for use with Graf Australia systems for this application



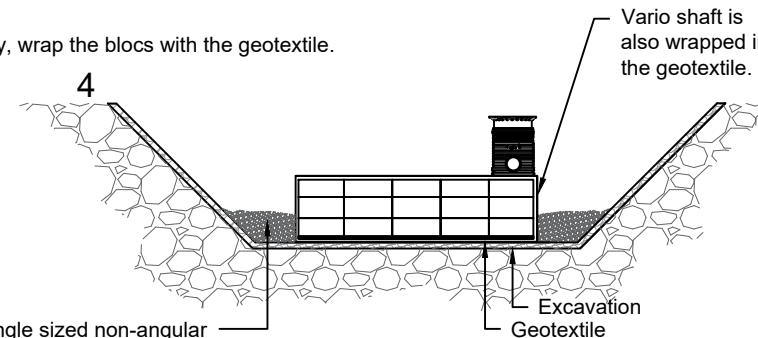
Before installing the next layer, ensure that the connector clips are clipped locking the Ecobloc together.



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



Finally, wrap the blocs with the geotextile.



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:

- 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).
 - Mark out the position of the tank including pipe connections.
 - 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%.
- Lay the geotextile over the base of the excavation and up the sides of the trench, overlapping any joins by a minimum of 300mm.
 - The geotextile used must meet the specification stated on the drawing.
- 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 Vario shaft is included within the tank, ensure that the Vario 800 Base is in position located (Vario shaft does not require EcoBloc Baseplate). Please note that Vario type 2 (2-layer system) is required for inspection in EcoBloc Smart tank.
 - Install already assembled EcoBloc Smart and Baseplate onto the geotextile until the first layer is complete. Insert retaining clips into each adjacent bloc.
 - Check and ensure that the row of EcoBloc Smart is in the correct located position where inspection run is required.
 - 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.
 - Continue until all EcoBloc Smart have been installed, ensuring clips are used to secure each bloc.
 - Fit Endplate to the sides of each bloc by positioning the bottom in place then pushing firmly on the top section.
 - Vario 800, type 1 & 2, consist of 4 walls which can be assembled in push fit manner. Please refer to Page 3 of this document for better visualization on Vario shaft installation.
- Fix adaptor plates to the sides of the bloc in the required position for the pipe connections if required.
 - Cut a hole in the geotextile for pipe connections.
 - Pull geotextile up around the sides and fully wrap the bloc, securing the top in place.
 - Install vent pipe connections into the top layer of the tank and direct to suitable location.
 - 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.
 - 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.

2		AW	10.09.2024
1		MV	13.09.2022
REV.	DESCRIPTION	BY	DATE

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

PROJECT	GRAF STANDARD DETAILS
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DESCRIPTION	INFILTRATION TANK using GRAF ECOBLOC SMART & VARIO SHAFT
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DRAWING No.	DWG-355	REV.	2 (Pg.2)
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VARIO 800 TYPE 1

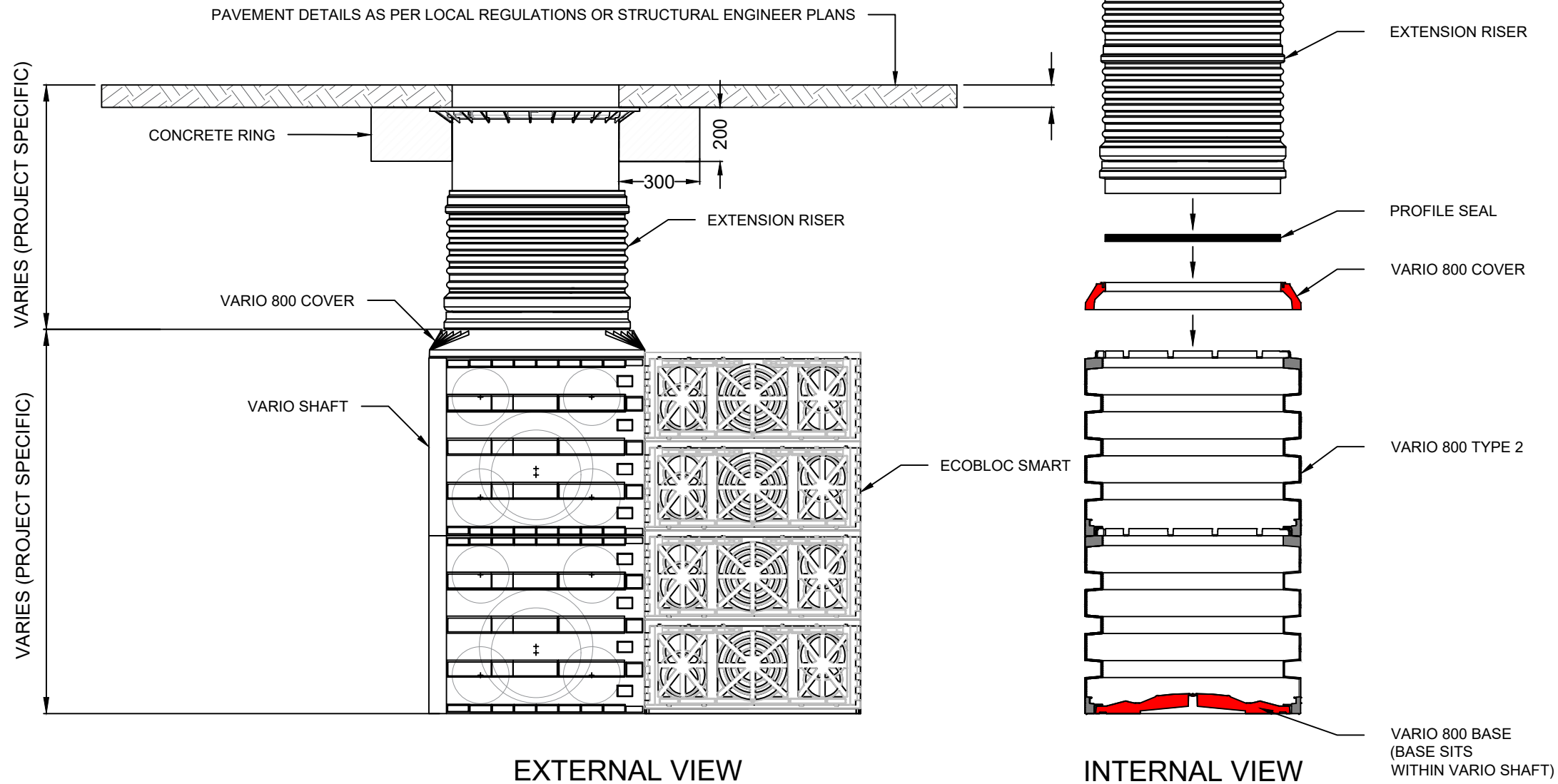
Dimensions (mm) 800 x 800 x 355
Volume 230L
Weight 14kg

VARIO 800 TYPE 2

Dimensions (mm) 800 x 800 x 660
Volume 420L
Weight 24kg

VARIO 800 BASE/COVER SET

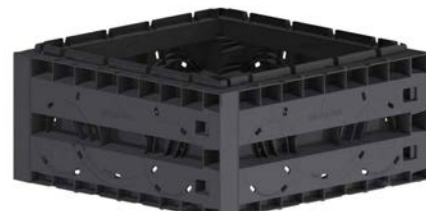
Dimensions (mm) 800 x 800 x 100
Weight 11kg



Vario 800 Cover



Vario 800, Type 1



Vario 800 Base



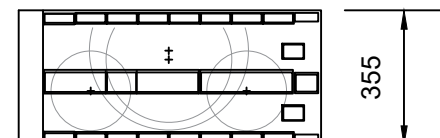
Vario 800 Cover



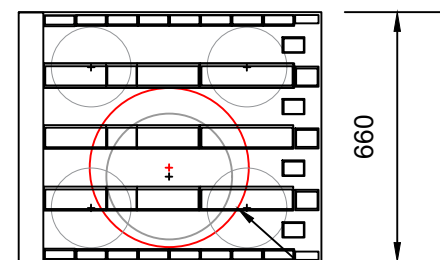
Vario 800, Type 2



Vario 800 Base



Vario 800, Type 1



Vario 800, Type 2

Drill on the mark towards the Ecobloc to access the tank for inspection



Vario 800 are modular and are easily assembled in a push fit manner.

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

PROJECT	GRAF STANDARD DETAILS
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DESCRIPTION	INFILTRATION TANK using GRAF ECOBLOC SMART & VARIO SHAFT
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DRAWING No.	DWG-355	REV.	2 (Pg.3)
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