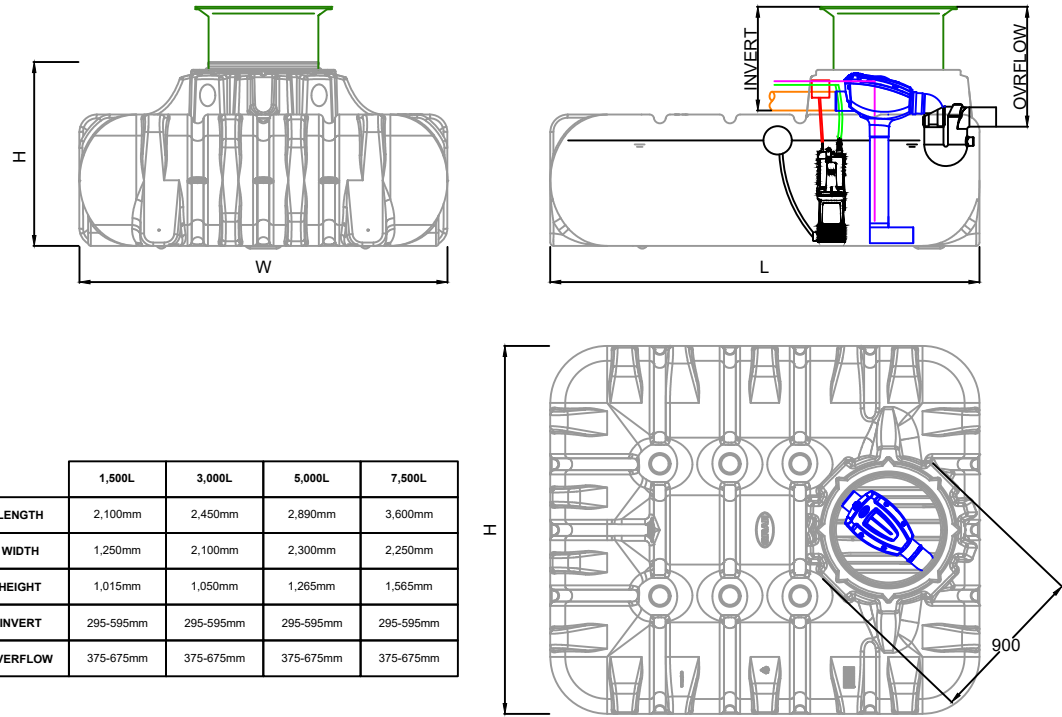
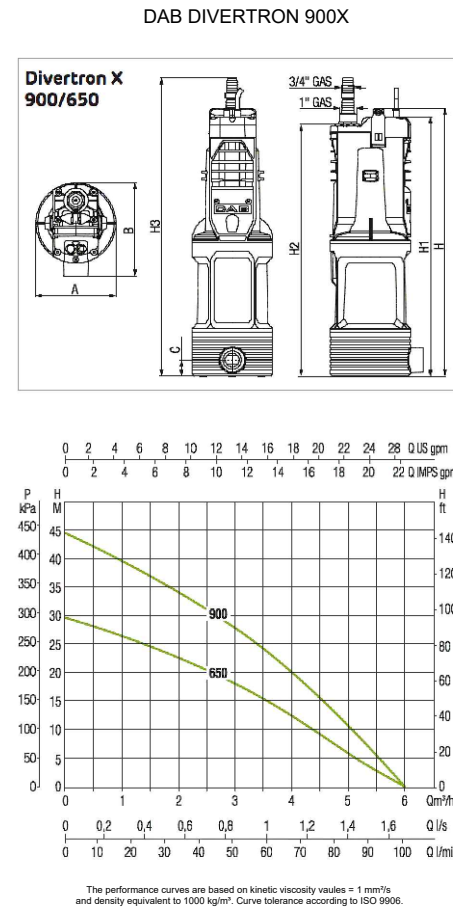


### TANK SIZES & DIMENSIONS



### SUBMERSIBLE PUMP DETAILS



### SYSTEM ACCESSORIES

- HOSE CONNECTION BOX -EXTERNAL (OPTIONAL EXTRA)
- HOSE CONNECTION BOX - INTERNAL (OPTIONAL EXTRA)
- SPRING WATER SHAFT (OPTIONAL EXTRA)
- INTERNAL CLEANING UNIT (OPTIONAL EXTRA)
- DIGITAL FILL LEVEL SENSOR (OPTIONAL EXTRA)

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### HOME INDIRECT PLATIN SPECIFICATION

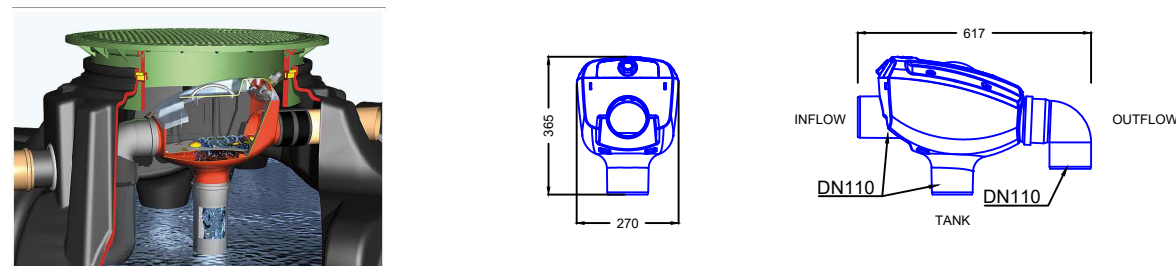


### TANK ACCESSORIES

Item	Diameter $\phi$	Min. Height (mm)	Max. Height (mm)	Max. Loading (kg)*
Pedestrian Loading Lid (Mini)	$\phi$ 600mm	60mm	360mm	150kg
Pedestrian Loading Lid (Maxi)	$\phi$ 600mm	60mm	476mm	150kg
Vehicle Loading Lid	$\phi$ 625mm	60mm	476mm	3,500kg
Extension Sleeve (1m)	$\phi$ 670mm	500mm	1,000mm	
Extension Sleeve	$\phi$ 680mm	250mm		
Tank Dome (Maxi)	$\phi$ 650mm	610mm		

\* Loading up to 12,000kg achievable (suitable cover to be provided by others)  
 \*\* Tank Dome (Maxi) available with DN100 or DN150 connections

### FILTER DETAILS



Pedestrian Loading Lid (Mini)

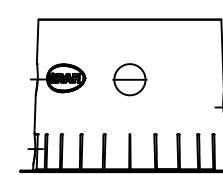
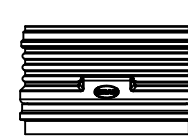
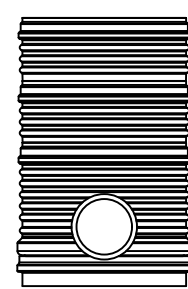
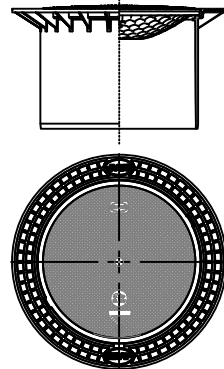
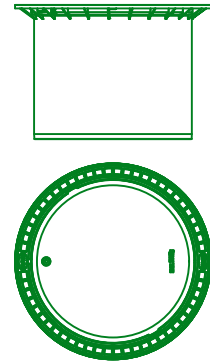
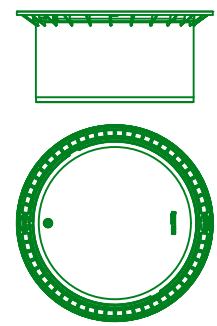
Pedestrian Loading Lid (Maxi)

Vehicle Loading Lid

Extension Sleeve (1m)

Extension Sleeve

Tank Dome (Maxi)



NOTE:- Tank accessory suitability may vary depending on project. Please contact Graf UK for sizing and support.

P0	LATEST REVISION	KS	27.01.25
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GRAF UK Limited, Regen House, Beaumont Road, Banbury, Oxfordshire, OX16 1RH

T: 01608 661500 F: 01295 211333  
 E: info@grafuk.co.uk www.grafuk.co.uk

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CHECKED :	DS	SCALE :	VARIOUS@A3

### PROJECT

## GRAF STANDARD DETAILS

DESCRIPTION HOME INDIRECT RAINWATER HARVESTING SYSTEM PLATIN TANK

DRAWING No.	HOME INDIRECT_STANDARD DETAIL_PLATIN	REV.	P0
		Page.	1

### SCOPE OF SUPPLY

#### SUPPLIED BY GRAF:

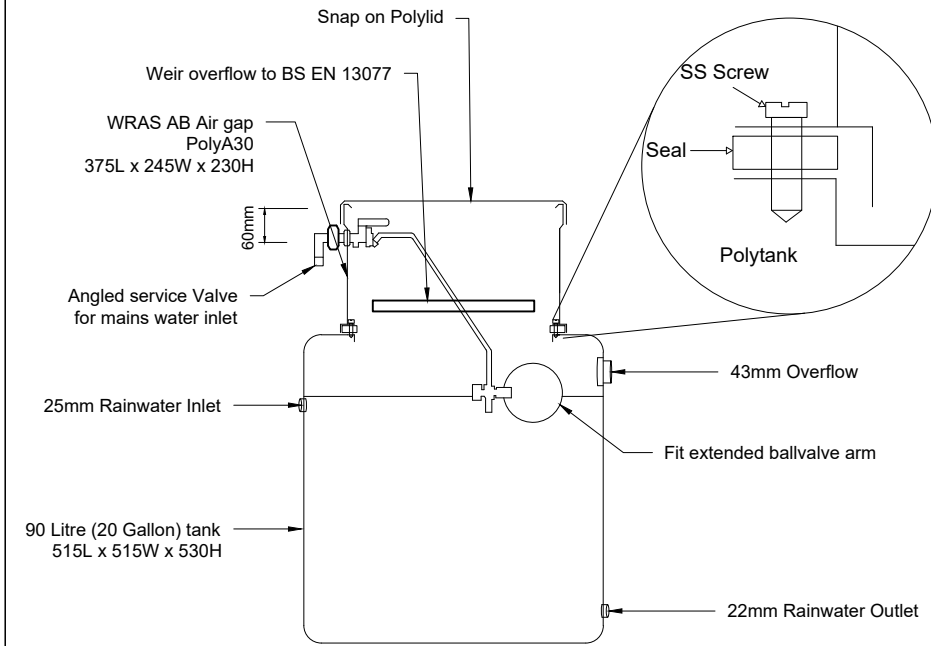
1. Underground tank
2. Telescopic lid
3. Filter
4. Pipe and fixings
5. Float intake & Submersible pump
6. Header Tank

#### SUPPLIED BY OTHERS:

7. 100mm duct for pump cable
8. 100mm drainage pipe to connect downpipes to inlet (all downpipes to be brought into one single inlet)
9. 100mm pipe for overflow from tank



### HEADER TANK SCHEMATIC



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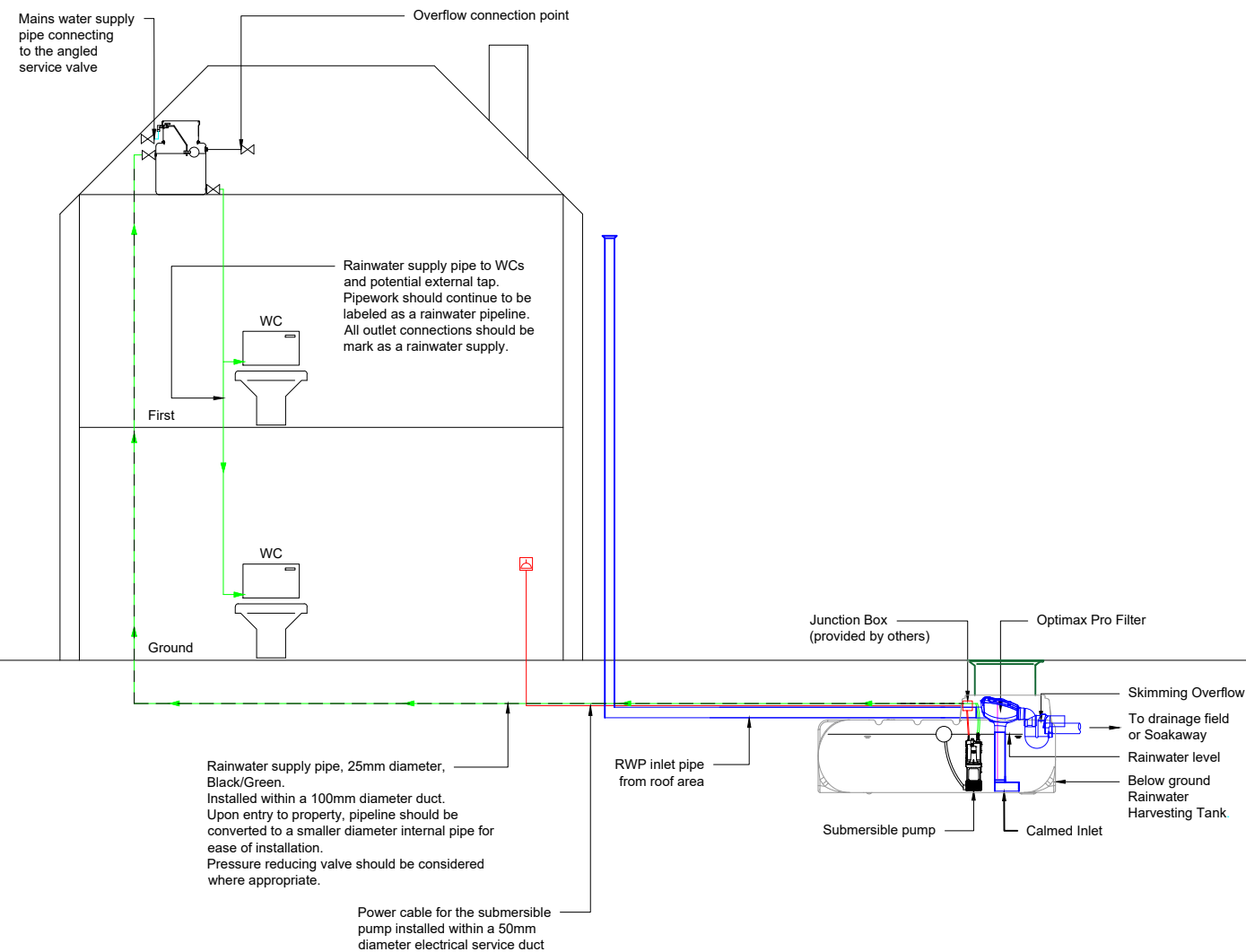
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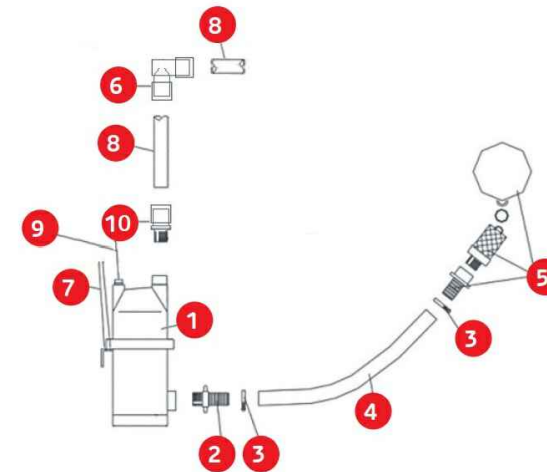
### HOME INDIRECT PLATIN SCHEMATIC



### HOME INDIRECT PLATIN SCHEMATIC



### SUBMERSIBLE PUMP AND PIPE ASSEMBLY



1. Submersible pump
2. Brass hose screwing
3. Hose clip
4. Suction hose
5. Floating suction set
6. 25mm compression elbow (optional fitting used for external tap connection)
7. Fixing set for submersible pump
8. Pressure hose, black & green colour, length 25m
9. Electricity supply, length 10m, 3-core cable
10. 25mm compression x 1 inch male threaded fitting

NOTE:- Tank accessory suitability may vary depending on project. Please contact Graf UK for sizing and support.

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PROJECT	GRAF STANDARD DETAILS
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DESCRIPTION	HOME INDIRECT RAINWATER HARVESTING SYSTEM PLATIN TANK
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DRAWING No.	HOME INDIRECT_STANDARD DETAIL_PLATIN	REV.	P0
			Page.2

## TRENCH DETAILS

FOR SUFFICIENT WORKING ROOM, THE BASE AREA OF THE TRENCH MUST EXCEED THE DIMENSIONS OF THE TANK BY 100mm ON ALL SIDES.

MINIMUM DISTANCE FROM SOLID STRUCTURES TO BE 1000mm.

THE TRENCH EMBANKMENT MUST BE DESIGNED SO SLIPPAGE OR COLLAPSE OF THE EMBANKMENT WALL IS NOT TO BE ANTICIPATED.

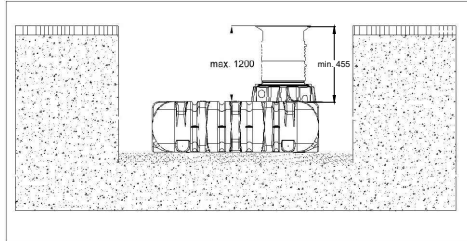
THE CONSTRUCTION SITE MUST BE HORIZONTAL AND PLANE AND MUST GUARANTEE SUFFICIENT LOAD-BEARING CAPACITY.

THE DEPTH OF THE TRENCH MUST BE DIMENSIONED SO THAT THE MAXIMUM COVER ABOVE THE TANK IS NOT EXCEEDED (SEE BELOW DETAILS).

THE TANK AND ANY OTHER COMPONENTS THAT CARRY WATER MUST BE INSTALLED IN A FROST-FREE AREA. THE FROST-FREE DEPTH IS USUALLY APPROX. 600mm-800mm. EXACT DEPTHS CAN BE OBTAINED FROM THE RESPONSIBLY AUTHORITY.

A 150mm-150mm COMPACTED LAYER OF 10-20mm ROUND GRAIN GRAVEL IS INSTALLED AT THE BASE OF THE EXCAVATION.

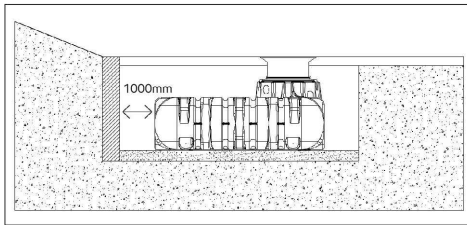
## MINIMUM & MAXIMUM COVER



MINIMUM COVER IN A LANDSCAPED AREA TO BE 455mm FROM SHOULDER OF TANK.

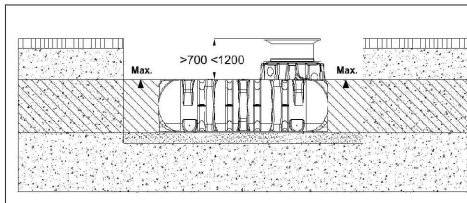
MAXIMUM COVER IN A LANDSCAPED AREA TO BE 1200mm FROM SHOULDER OF TANK.

## SLOPE/EMBANKMENT INSTALLATIONS



IF THE TANK IS TO BE INSTALLED IN THE IMMEDIATE VICINITY (<5m) OF A SLOPE OR EMBANKMENT, A STATICALLY CALCULATED RETAINING WALL MUST BE ERRECTED TO ABSORB ANY ADDITIONAL LOADING FROM THE SOIL. THE WALL MUST EXCEED THE DIMENSIONS OF THE TANK BY AT LEAST 500mm IN ALL DIRECTIONS AND MUST BE LOCATED AT LEAST 1000mm AWAY FROM THE TANK.

## GROUNDWATER INSTALLATIONS



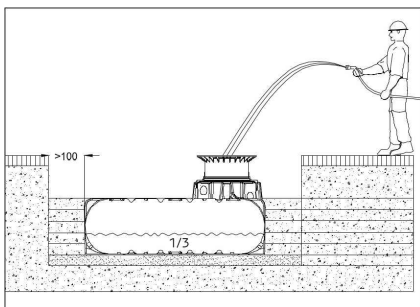
IF IT IS ANTICIPATED THAT THE TANK WILL BE IMMERSED IN GROUNDWATER DEEPER THAN SHOWN IN THE BELOW TABLE, SUFFICIENT DISSIPATION MUST BE ENSURED. DISSIPATION OF THE DRAINAGE WATER (E.G. VIA AN ANNULAR DRAINAGE SYSTEM) IS RECOMMENDED IN CASES OF COHESIVE, WATER-IMPERMEABLE SOIL.

TANK SIZE	1,500L	3,000L	5,000L	7,500L
IMMERSION DEPTH	700mm	735mm	1,000mm	1,250mm

MINIMUM COVER TO BE 700mm FROM SHOULDER OF TANK IN AREAS WITH GROUNDWATER.

MAXIMUM COVER TO BE 1,200mm FROM SHOULDER OF TANK IN AREAS WITH GROUNDWATER.

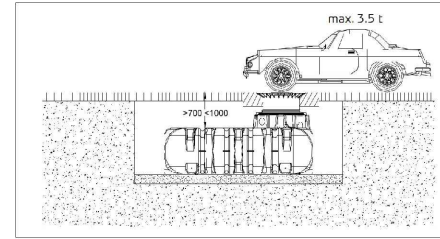
## INSERTION & FILLING



THE TANK MUST BE INSERTED, IMPACT-FREE, INTO THE PREPARED TRENCH USING SUITABLE EQUIPMENT.

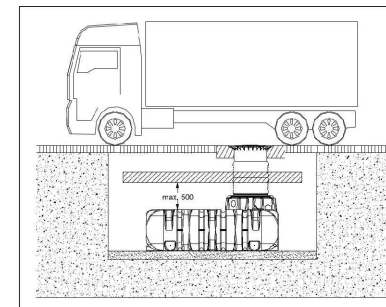
THE TANK IS FILLED WITH 1/3 WATER BEFORE BACKFILLING. THE 10-20mm ROUND GRAIN GRAVEL IS BACKFILLED IN LAYERS OF MAX. 300mm STEPS AND IS TO BE WELL COMPACTED WITH A MANUAL TAMPER. MECHANICAL COMPACTION MACHINES ARE NOT TO BE USED UNDER ANY CIRCUMSTANCES. SURROUND MUST BE AT LEAST 100mm ON ALL SIDES OF THE TANK.

## VEHICLE LOADING CONDITIONS



FOR LOADINGS OF UP TO 3,500KG IN TRAFFICKED AREAS WITH NO GROUNDWATER, THERE MUST BE;

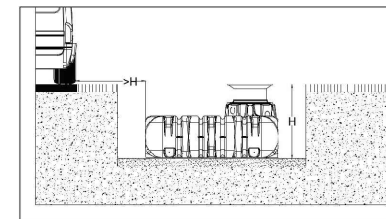
MINIMUM COVER OF 700mm FROM THE SHOULDER OF THE TANK, AND MAXIMUM COVER OF 1,000mm FROM THE SHOULDER OF THE TANK.



FOR LOADINGS OF MORE THAN 3,500KG AND UP TO HGV LOADING IN AREAS OF NO GROUNDWATER, THERE MUST BE;

A SELF-SUPPORTING IRON-REINFORCED CONCRETE PLATE, THAT WILL ENSURE THAT NO ADDITIONAL FORCES OR EFFECTS FROM THE HGV-BEARING WILL TRANSFER TO THE TANK/S.

THE MAXIMUM DISTANCE FROM THE BODY OF THE TANK TO THE REINFORCING PLATE IS 500mm.



FOR INSTALLATIONS ADJACENT TO SURFACES USED BY VEHICLES OF OVER 3,500KG, THE TANK MUST BE INSTALLED AT A DISTANCE FROM THE ROAD SURFACE THAT IT AT LEAST THE DEPTH OF THE TRENCH.

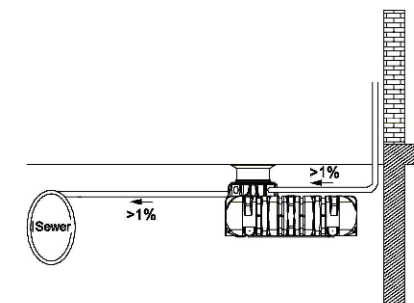
## PIPE CONNECTIONS

ALL PIPE CONNECTIONS MUST BE INSTALLED WITH A FALL OF AT LEAST 1% IN THE DIRECTION OF FLOW (POSSIBLE, SUBSEQUENT SETTLING MUST BE TAKEN INTO ACCOUNT).

IF THE TANK OVERFLOW IS CONNECTED TO A PUBLIC SEWER, THIS MUST BE PROTECTED AGAINST REFLUX BY MEANS OF A LIFTING STATION OR REFLUX SEAL IN ACCORDANCE WITH DIN 1986.

ALL SUCTION, PRESSURE & CONTROL LINES MUST BE INSTALLED IN AN EMPTY PIPE / DUCT AND AS STRAIGHT AS POSSIBLE. ANY NECESSARY BENDS MUST BE FORMED IN 30 DEGREE MOULDED SECTIONS.

**IMPORTANT:** THE EMPTY PIPE / DUCT MUST BE CONNECTED TO AN APERTURE ABOVE THE MAX. WATER LEVEL.



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## HOME INDIRECT CARAT TANK INSTALLATION



P0 LATEST REVISION KS 27.01.2025

REV. DESCRIPTION BY DATE

**GRAF** GRAF UK Limited

GRAF UK Limited, Regen House, Beaumont Road, Banbury, Oxfordshire, OX16 1RH

T: 01608 661500

F: 01295 211333

E: info@grafuk.co.uk

www.grafuk.co.uk

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PROJECT

**GRAF STANDARD DETAILS**

DESCRIPTION

HOME INDIRECT RAINWATER HARVESTING SYSTEM CARAT TANK

DRAWING No. REV.

HOME INDIRECT\_STANDARD DETAIL\_CARAT P0

Page.3

**PLEASE REFER TO TANK INSTALLATION GUIDE FOR DETAILS ON; SAFETY, PRODUCT FEATURES, IDENTIFICATION OBLIGATIONS, TECHNICAL DATA, TANK STRUCTURE, TANK ASSEMBLY & SERVICING AND INSPECTION.**