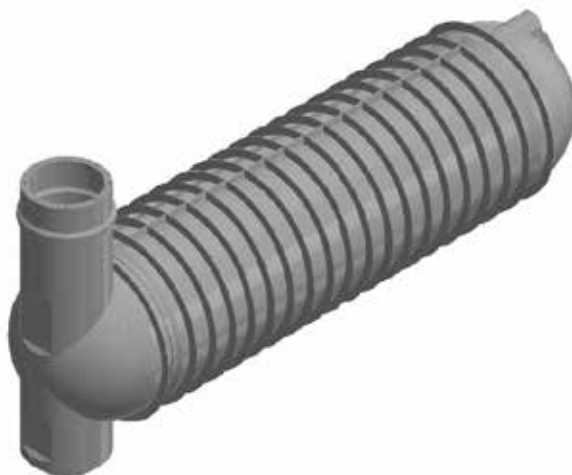


RELIABLE
STORMWATER
MANAGEMENT

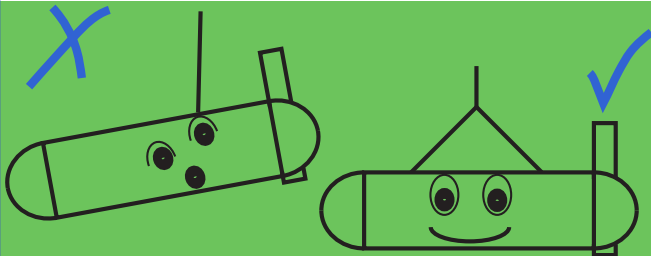
INSTALLATION GUIDE

V3

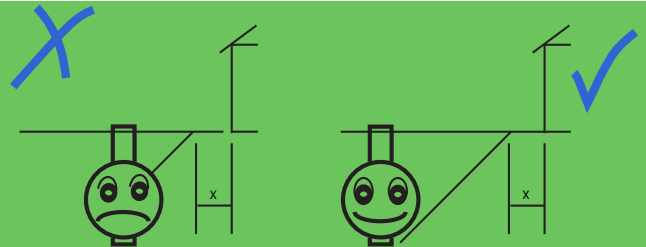


IMPORTANT!

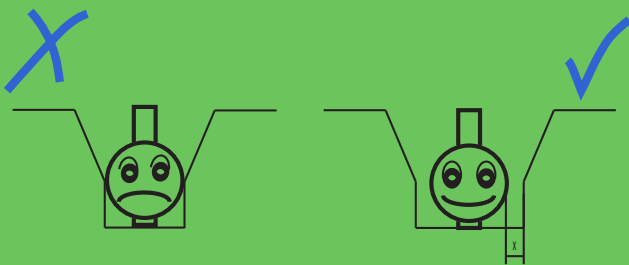
Refer to your install guide. Incorrect installation voids warranty.



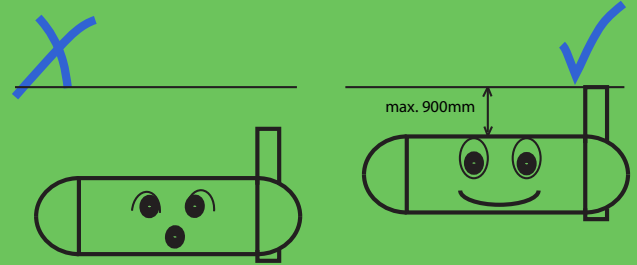
**Lift with 2 strops - no chains.
Spreader bar on larger tanks**



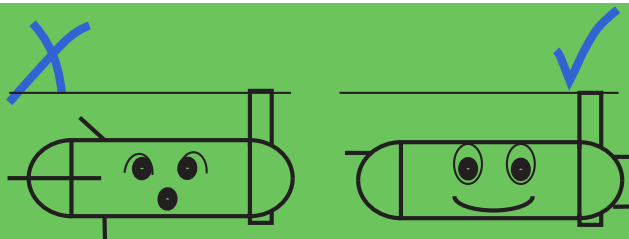
**Follow minimum separation
from structures - see docs**



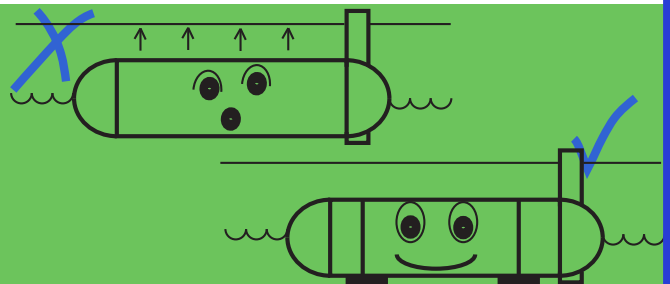
**Min. gap around tank 0.2m no
anchors, 0.6m with anchors**



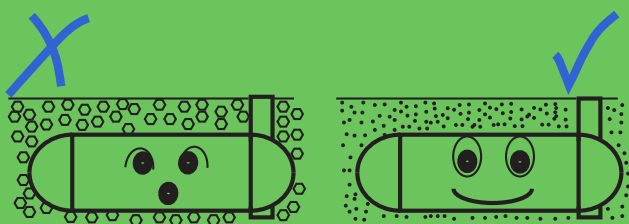
**Do not exceed max. depth of
burial - 900mm over tank body**



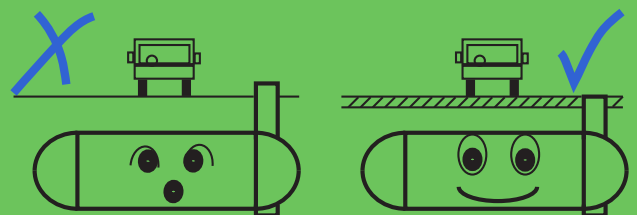
**Connect to tank ends - not
cylindrical body of tank**



**Use ground anchors if water
table present**



**Max. fill size Gap 20 around tank
and 150mm over top of tank**



**Tanks are not trafficable w/out
driveway design cover installed**

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GROUND COMPRESSION ANCHOR INSTALL

GROUND COMPRESSION ANCHORS DETAIL

MULTIPLE TANKS

CONNECTION KIT

INSTALLATION NOTES

Devan stormVAULT underground tanks are made from an extremely robust grade of polyethylene specifically developed for use in underground products required to deal with the extraordinary forces of this type of installation. The unique vessel design has allowed Devan to develop an extremely lightweight and flexible product that is the most robust of its type.

To follow are a series of installation notes to assist in ensuring your installation provides optimal performance and life span. These notes should be read in conjunction with Devan's standard installation details.

Excavation

The excavation zone for the installation of the underground tank/s must comply with all relevant legal acts, codes and standards.

Unless the stability of the excavated face is determined by a registered engineer or a competent person (experienced in excavations), the safe slope should not exceed one vertical to one horizontal.

Bedding

Compact bedding material shall be used to obtain a firm level base with a minimum depth of 100mm. Use GAP 10 or GAP 20 material.

Positioning the Tank

Ensure there are enough people to assist in the process (trained) and that all lifting equipment is capable of lifting the tanks. Check the orientation of the inlet and outlet. Check the manhole for level and alignment.

Maximum Depth

The maximum burial depth of the tanks is 900mm.

Ground Water Anti-Flotation

The tanks are designed to resist flotation, in some instances, please see ground anchor chart to estimate the number of anchors if additional anchoring is required. If additional anchoring is required please also consider using the Devan stormwater tool box calculator.

Health & Safety

Installation shall be carried out in accordance with the recommended WorkSafe Approved Code of Practice for Safety.

Surface Runoff

Divert surface runoff away from tanks.

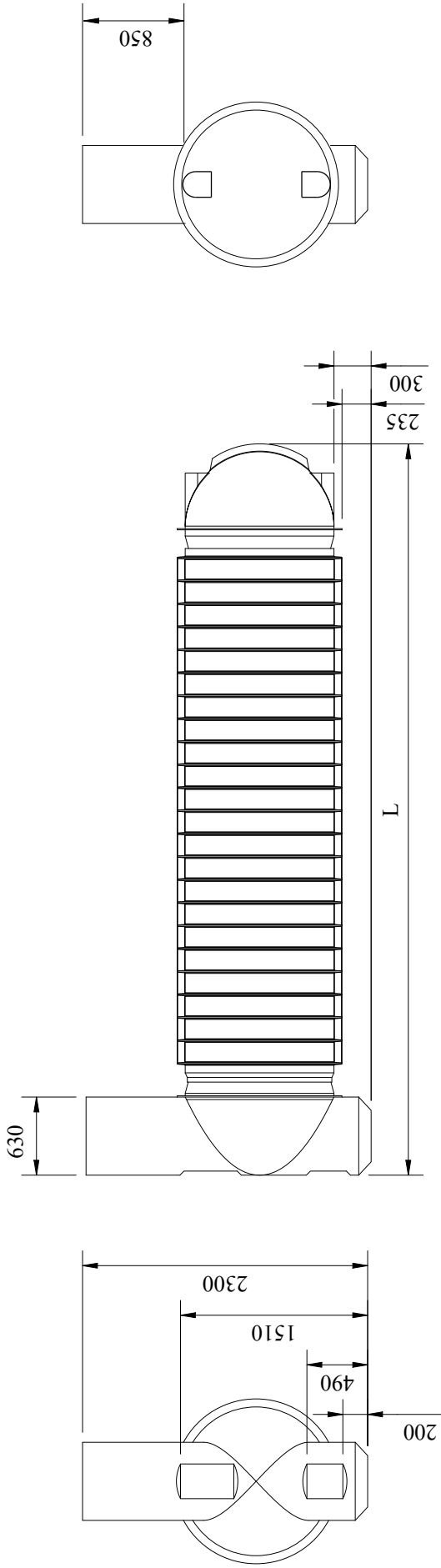
Warranty

Failure to comply with these instructions and Devan's standard installation details, will invalidate the warranty.

Support

If at any point you are unsure about anything to do with your installation, Devan have experts on hand to assist with any technical issues you may have.

DIMENSIONS



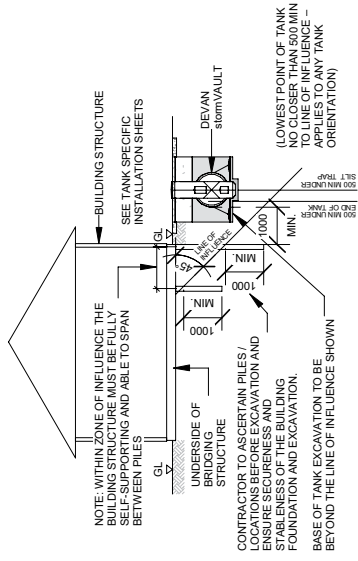
Code	Tank Volume	L *(m)	Weight (kg)	Code	Lid Type
SVR12-01	1,000L	1.46	113	SVALP	stormVAULT Plastic lid
SVR12-015	1,500L	1.91	137	SVALTC	Cast Iron Lid class D - Commercial trafficable
SVR12-02	2,000L	2.25	160	SVALAR	stormVAULT adjustment ring and temporary lid
SVR12-025	2,500L	2.72	192		
SVR12-03	3,000L	3.2	224	Other	
SVR12-035	3,500L	3.68	256	SVGA-12	stormVAULT Ground anchor set - 1200mm
SVR12-04	4,000L	4.15	288	SVAO100	stormVAULT 100mm connection kitset
SVR12-045	4,500L	4.55	314		
SVR12-05	5,000L	5.05	348		
SVR12-055	5,500L	5.5	378		
SVR12-06	6,000L	5.95	409		
SVR12-065	6,500L	6.43	441		
SVR12-07	7,000L	6.9	473		
SVR12-075	7,500L	7.35	503		
SVR12-08	8,000L	7.85	537		
SVR12-085	8,500L	8.3	567		
SVR12-09	9,000L	8.75	597		
SVR12-095	9,500L	9.2	627		
SVR12-10	10,000L	9.65	658		
SVR12-105	10,500L*	10.1	688		
SVR12-11	11,000L*	10.55	718		
SVR12-115	11,500L*	11.05	752		
SVR12-12	12,000L*	11.55	786		
SVR12-125	12,500L*	11.95	813		

* 10,500L and larger incur additional freight
** Length can vary up to 100mm longer due to manufacturing process
Stub flanges and pipe stubs also available on request



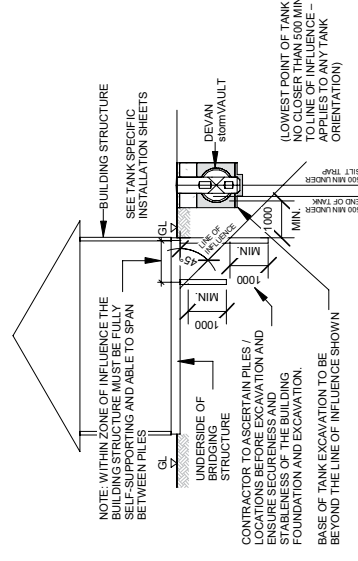
TANK PLACEMENT - ALL MODELS

With Anchors

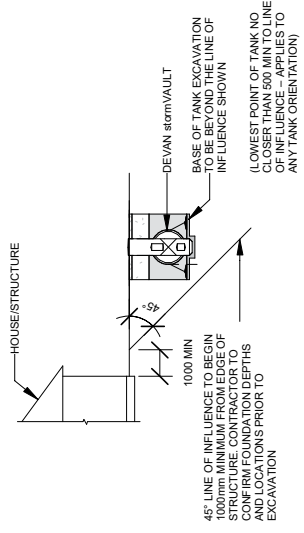


3 TANK PLACEMENT NEAR PILED FOUNDATIONS

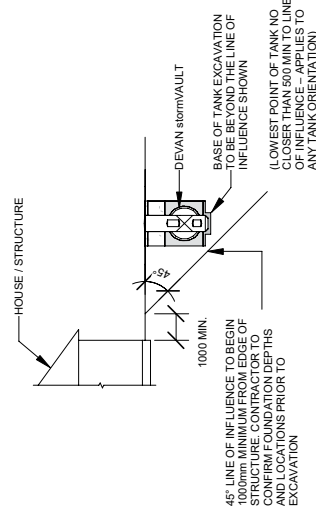
Without Anchors



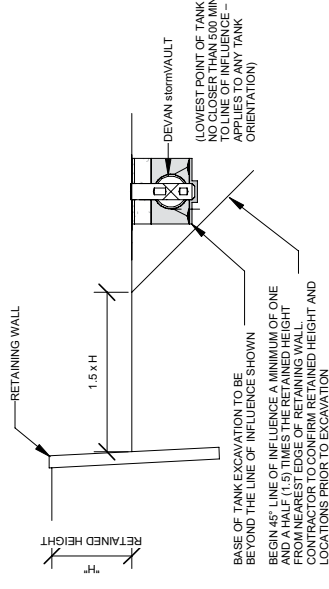
3 TANK PLACEMENT NEAR PILED FOUNDATIONS



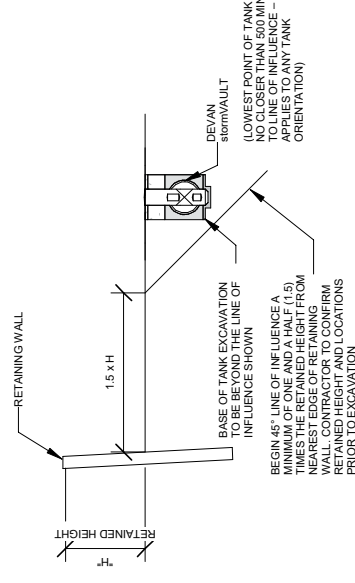
4 TANK PLACEMENT NEAR BUILDING STRUCTURE



4 TANK PLACEMENT NEAR BUILDING STRUCTURE



5 TANK PLACEMENT NEAR RETAINING WALL



5 TANK PLACEMENT NEAR RETAINING WALL

For full installation detail see the installation drawings specific to this installation



NOTE: NO TRAFFIC LOADING IS ALLOWED OVER THE TANK

3000mm MIN. 14,000mm MAX. (DEPENDING ON TANK LENGTH)

100mm TOPSOIL

200

100

300mm min

150

900mm max

CRUSHED STONE OR GRAVEL BACKFILL TO A MINIMUM OF 300mm MIN. UNLESS MATERIAL AS PER SPECIFICATION

200

200

100mm COMPACTED BASECOURSE AS PER SPECIFICATION

ANCHOR PADS TO BE SET LEVEL AND OUTSIDE THE LINE OF TANK DIAMETER

1

S-002

100mm COMPACTED BASECOURSE AS PER SPECIFICATION

200

100

200

ACCESS CHAMBER WITH PLASTIC LID BY DE/AN

BACKFILL WITH SUITABLE SOILS

TANK PIT OUTLINE REFER TO BATTERING/BENCHING/SHORING NOTES FOR EXCAVATION REQUIREMENTS

100mm COMPACTED BASECOURSE AS PER SPECIFICATION

ANCHOR PADS TO BE SET LEVEL AND OUTSIDE THE LINE OF TANK DIAMETER

MINIMUM EXCAVATED CLEARANCE AROUND TANK 200mm MINIMUM, UNLESS GROUND ANCHORS ARE REQUIRED

600

NOTE:
storm/AULT 800mm TANKS MAY BE
DIRECTLY SUBSTITUTED WITH THE
storm/AULT 1200mm TANKS, PROVIDED
ALL DIMENSIONAL CONSTRAINTS IN
THESE DRAWINGS ARE FOLLOWED.

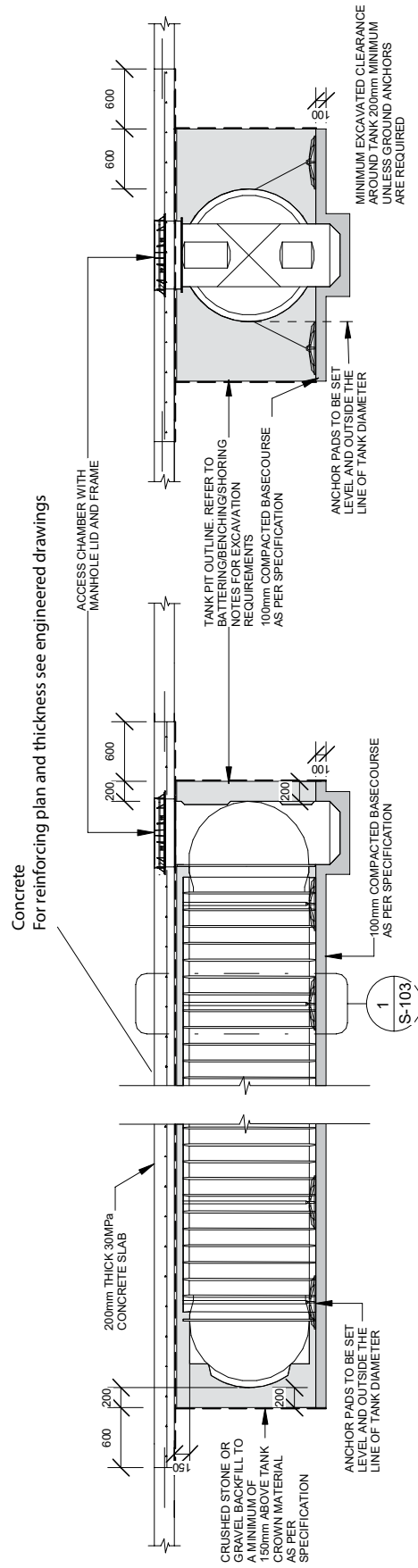


Backfill detail - 1200 Series Typical Lawn installation

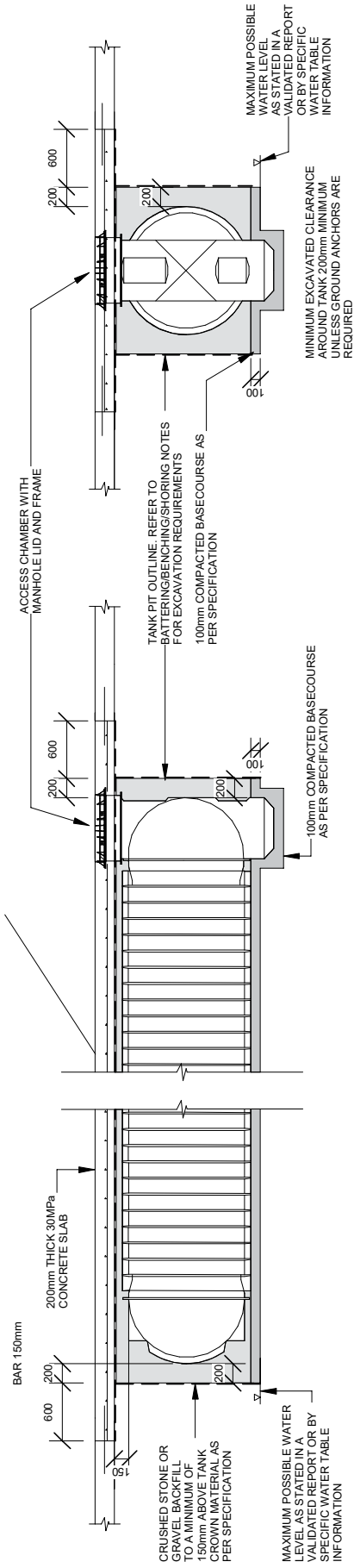
TYPICAL DRIVE INSTALL

For full installation detail see the installation drawings specific to this installation

With Anchors

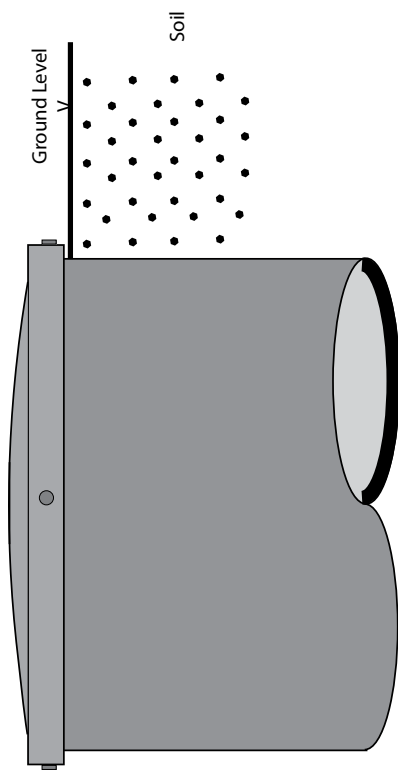
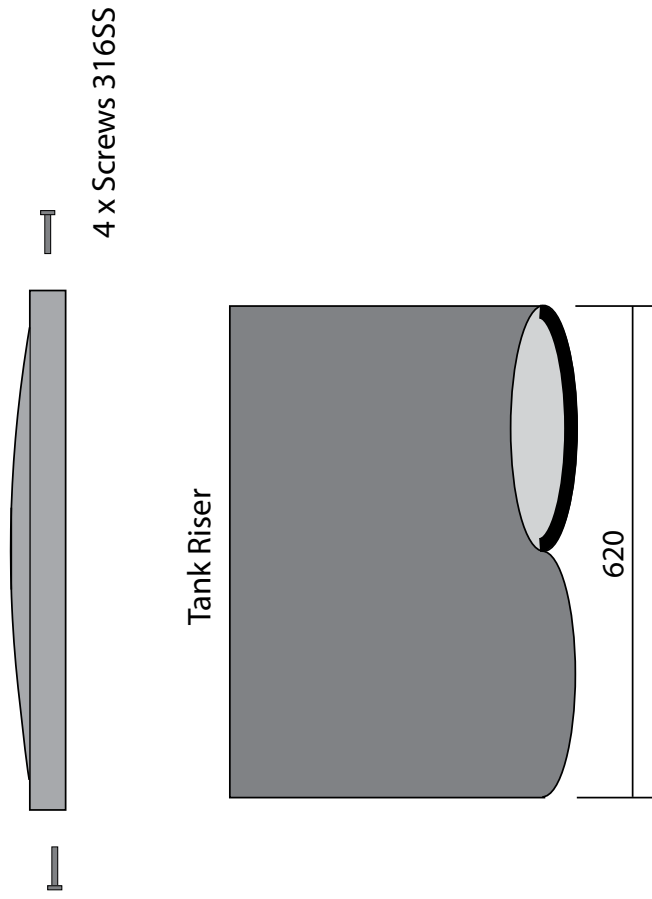


Without Anchors



See stormVAULT installation drawings for full details

PLASTIC LID DETAIL



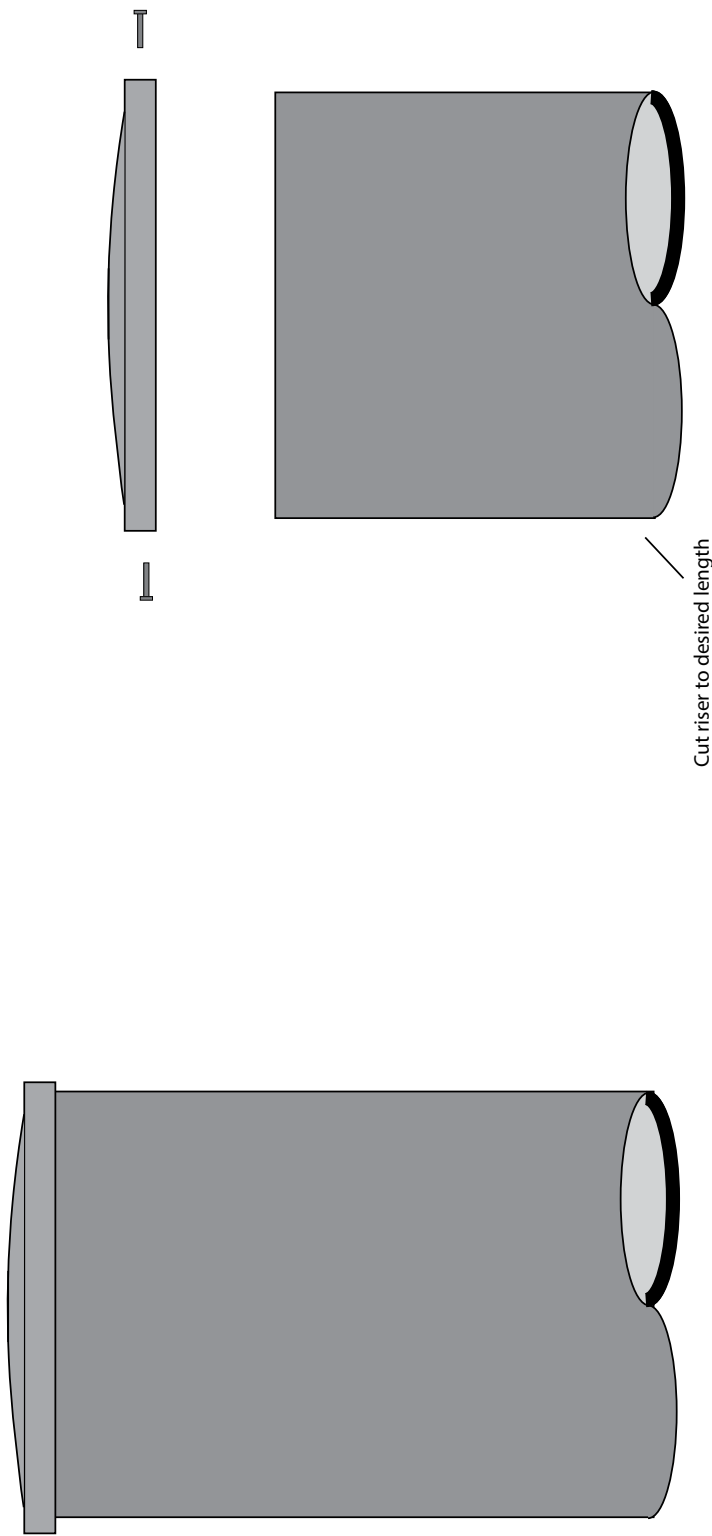
Important Notes:

- All lid bolts to be fully installed and tight to prevent access by children
- Top of lid must not be buried
- Slope ground away to prevent flooding or surface water build up

stormVAULT - Plastic Lid Assembly - All Models



RISER ADJUSTMENT

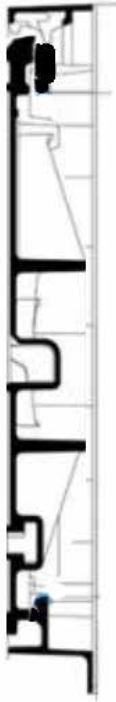


stormVAULT - Plastic Lid Riser Adjustment - All Models

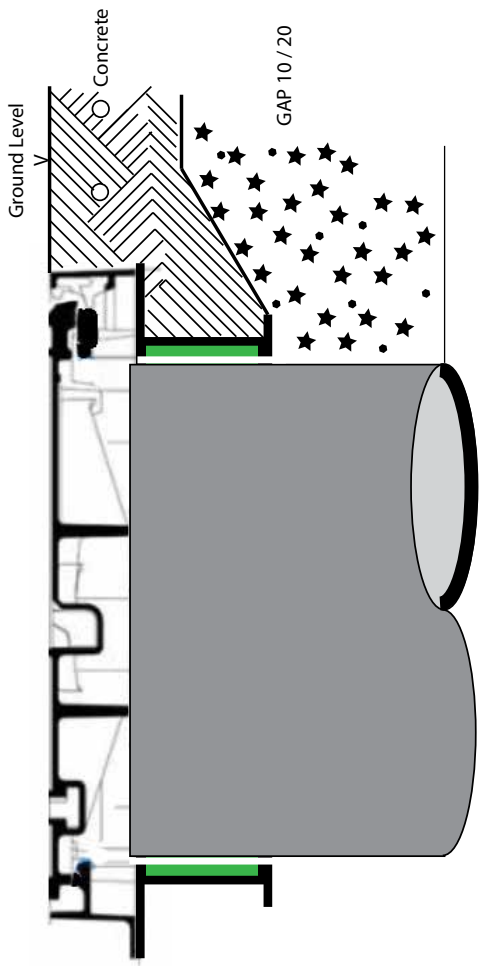
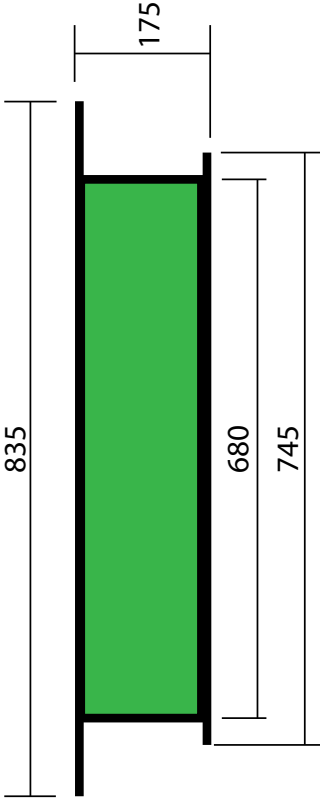


CAST IRON LID ADJUSTMENT RING

Cast Iron Manway

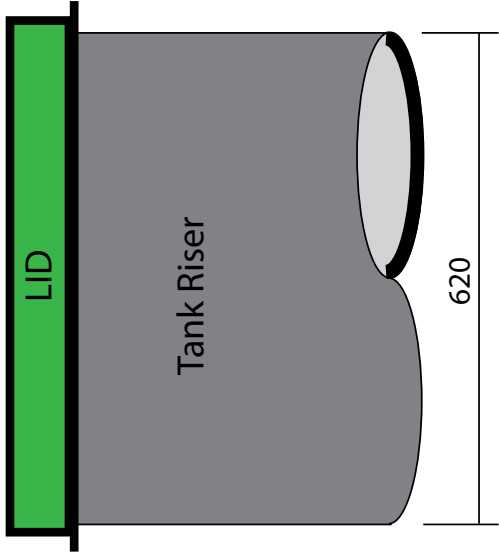


Adjustment Ring



Important Notes:

- Top of riser must be flush with top of adjustment ring
- Use adjustment ring to match drive slope if required, maximum 5 degrees
- Do not attach adjustment ring to tank riser
- For reinforcing plan and thickness see engineered drawings
- Lid fully installed to prevent access by children
- Top of lid must not be buried
- Slope ground away to prevent flooding or surface water build up



stormVAULT - Cast Iron Manway Assembly



GROUND ANCHOR CHART

SIZE	Total fill height over body of tank										SIZE	
	10m3		350mm		450mm		550mm		650mm			
Water Table	with 0mm GAP10	with 150mm GAP10 (soil only)	with 250mm GAP10	with 0mm GAP10 (soil only)	with 150mm GAP10	with 250mm GAP10	with 0mm GAP10 (soil only)	with 150mm GAP10	with 250mm GAP10	with 0mm GAP10 (soil only)	with 150mm GAP10	with 250mm GAP10
	0.00	7	6	4	0	4	0	4	0	0	0	0
	0.25	7	6	4	0	4	0	4	0	0	0	0
	0.50	6	6	4	0	4	0	4	0	0	0	0
	0.75	4	0	0	0	4	0	0	0	0	0	0
1.00	0	0	0	0	0	0	0	0	0	0	0	0

9m3		350mm			450mm			550mm			650mm		
	with 0mm GAP10 (soil only)	with 150mm GAP10	with 250mm GAP10	with 0mm GAP10 (soil only)	with 150mm GAP10	with 250mm GAP10	with 0mm GAP10 (soil only)	with 150mm GAP10	with 250mm GAP10	with 0mm GAP10 (soil only)	with 150mm GAP10	with 250mm GAP10	
Water Table													
0.00	7	5	4	5	4	0	4	0	0	0	0	0	
0.25	7	5	4	5	4	0	4	0	0	0	0	0	
0.50	5	5	4	5	4	0	4	0	0	0	0	0	
0.75	4	0	0	4	0	0	0	0	0	0	0	0	
1.00	0	0	0	0	0	0	0	0	0	0	0	0	

8m3		350mm			450mm			550mm			650mm		
	with 0mm GAP10 (soil only)	with 150mm GAP10	with 250mm GAP10	with 0mm GAP10 (soil only)	with 150mm GAP10	with 250mm GAP10	with 0mm GAP10 (soil only)	with 150mm GAP10	with 250mm GAP10	with 0mm GAP10 (soil only)	with 150mm GAP10	with 250mm GAP10	
Water Table													
0.00	6	5	4	5	4	0	4	0	0	0	0	0	
0.25	6	5	4	5	4	0	4	0	0	0	0	0	
0.50	5	5	4	5	4	0	4	0	0	0	0	0	
0.75	4	0	0	4	0	0	0	0	0	0	0	0	
1.00	0	0	0	0	0	0	0	0	0	0	0	0	

	7m3		350mm		450mm		550mm		650mm		
	with 0mm GAP10 (soil only)	with 150mm GAP10	with 0mm GAP10 (soil only)	with 150mm GAP10	with 0mm GAP10 (soil only)	with 150mm GAP10	with 0mm GAP10 (soil only)	with 150mm GAP10	with 0mm GAP10 (soil only)	with 150mm GAP10	
Water Table	0.00	5	4	4	3	0	0	0	0	0	0
	0.25	5	4	4	3	0	0	0	0	0	0
	0.50	4	4	4	3	0	0	0	0	0	0
	0.75	3	0	0	3	0	0	0	0	0	0
	1.00	0	0	0	0	0	0	0	0	0	0

6m3	350mm			450mm			550mm			650mm		
	with 0mm GAP10 (soil only)	with 150mm GAP10	with 250mm GAP10	with 0mm GAP10 (soil only)	with 150mm GAP10	with 250mm GAP10	with 0mm GAP10 (soil only)	with 150mm GAP10	with 250mm GAP10	with 0mm GAP10 (soil only)	with 150mm GAP10	with 250mm GAP10
Water Table												
0.00	5	4	4	4	3	0	4	4	0	0	0	0
0.25	5	4	4	4	3	0	4	4	0	0	0	0
0.50	4	4	4	4	3	0	4	4	0	0	0	0
0.75	3	0	0	3	0	0	0	0	0	0	0	0
1.00	0	0	0	0	0	0	0	0	0	0	0	0

Water Table		0.0m =	Water at surface level
		0.25m =	Water 0.25m below ground level
		0.50m =	Water 0.50m below ground level
		0.75m =	Water 0.75m below ground level
		1.0m =	Water 1.0m below ground level

Water Table		0.0m =	Water at surface level
		0.25m =	Water 0.25m below ground level
		0.50m =	Water 0.50m below ground level
		0.75m =	Water 0.75m below ground level
		1.0m =	Water 1.0m below ground level

Water Table		0.0m =	Water at surface level
		0.25m =	Water 0.25m below ground level
		0.50m =	Water 0.50m below ground level
		0.75m =	Water 0.75m below ground level
		1.0m =	Water 1.0m below ground level

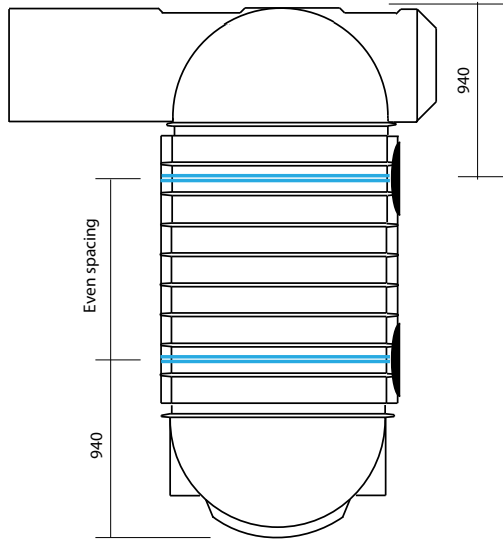
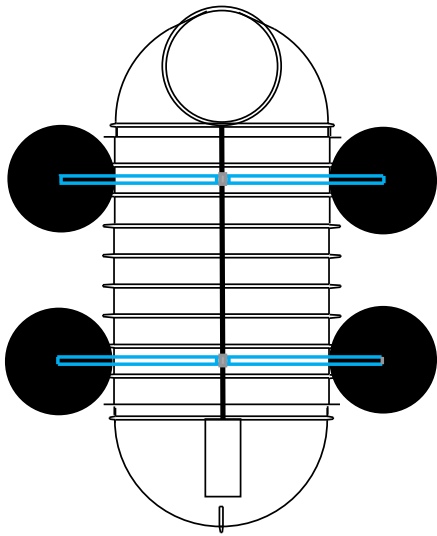
Water Table		0.0m =	Water at surface level
		0.25m =	Water 0.25m below ground level
		0.50m =	Water 0.50m below ground level
		0.75m =	Water 0.75m below ground level
		1.0m =	Water 1.0m below ground level

The above chart is a guide, for site specific uplift calculation please use the Devan stormVAULT tool box spreadsheet, please call Devan for the latest version

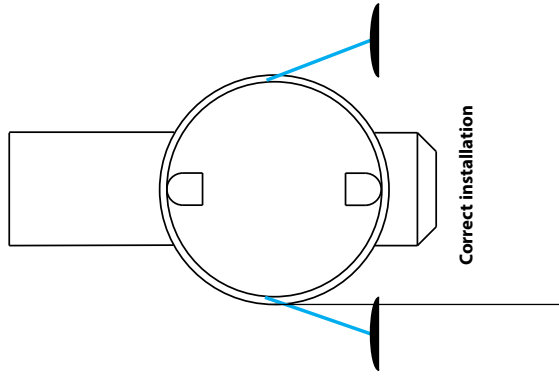
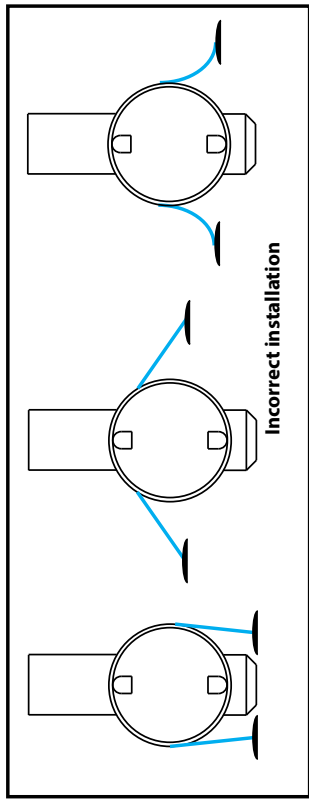
Ground Compression Anchor Guide - 1200 Series



GROUND ANCHOR INSTALL



Two anchors must be located 940 from end of tank

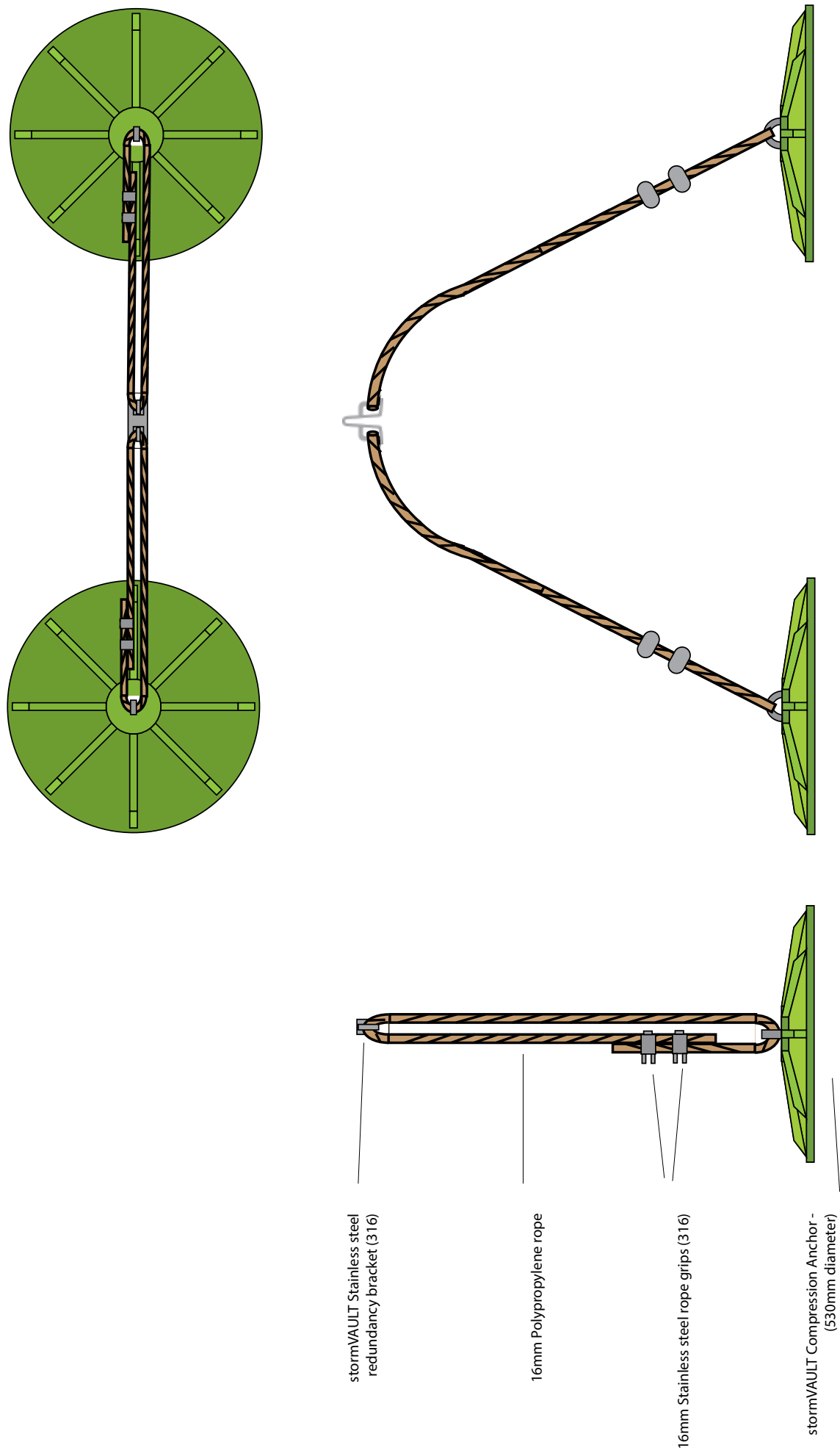


90% of disc must be outside shadow of tank

Important Installation Notes:

- Pads must be installed level
- Pads should be in line with bottom of culvert section of tank
- Rope must not be slack, use pegs to hold pads in position
- Check rope grips are tight
- Pads must be installed outside of tank shadow to be effective

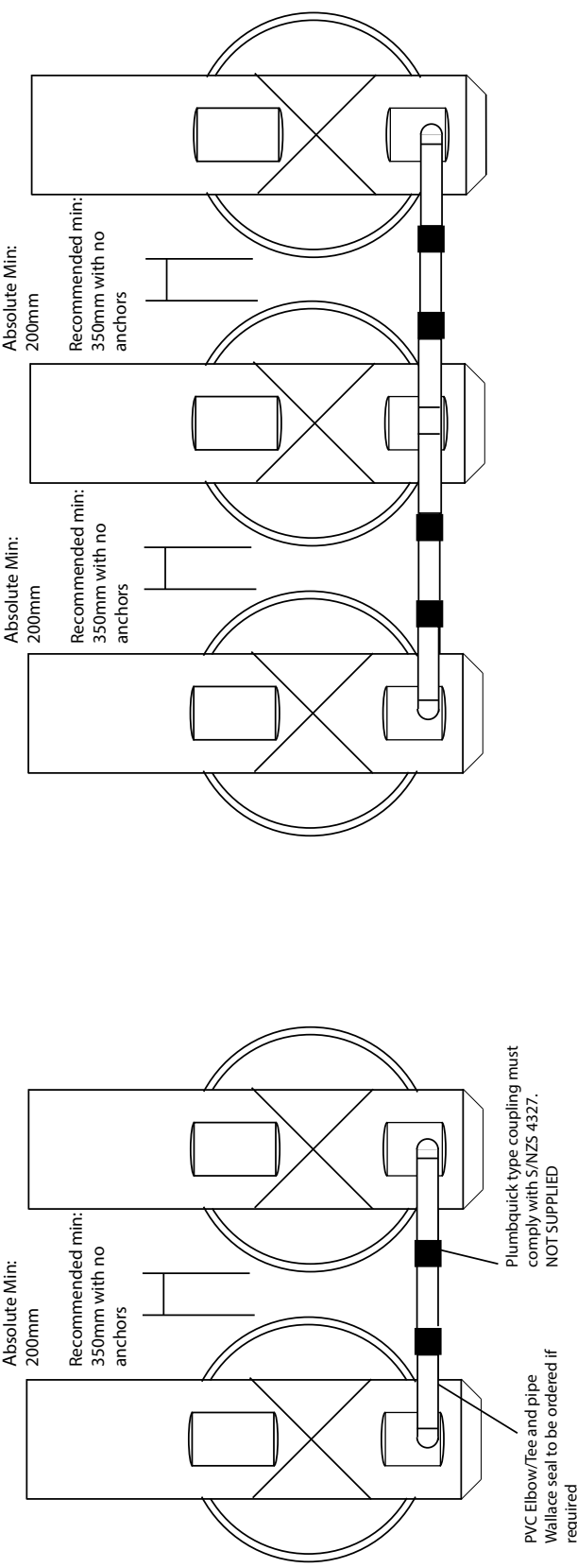
GROUND ANCHORS DETAIL



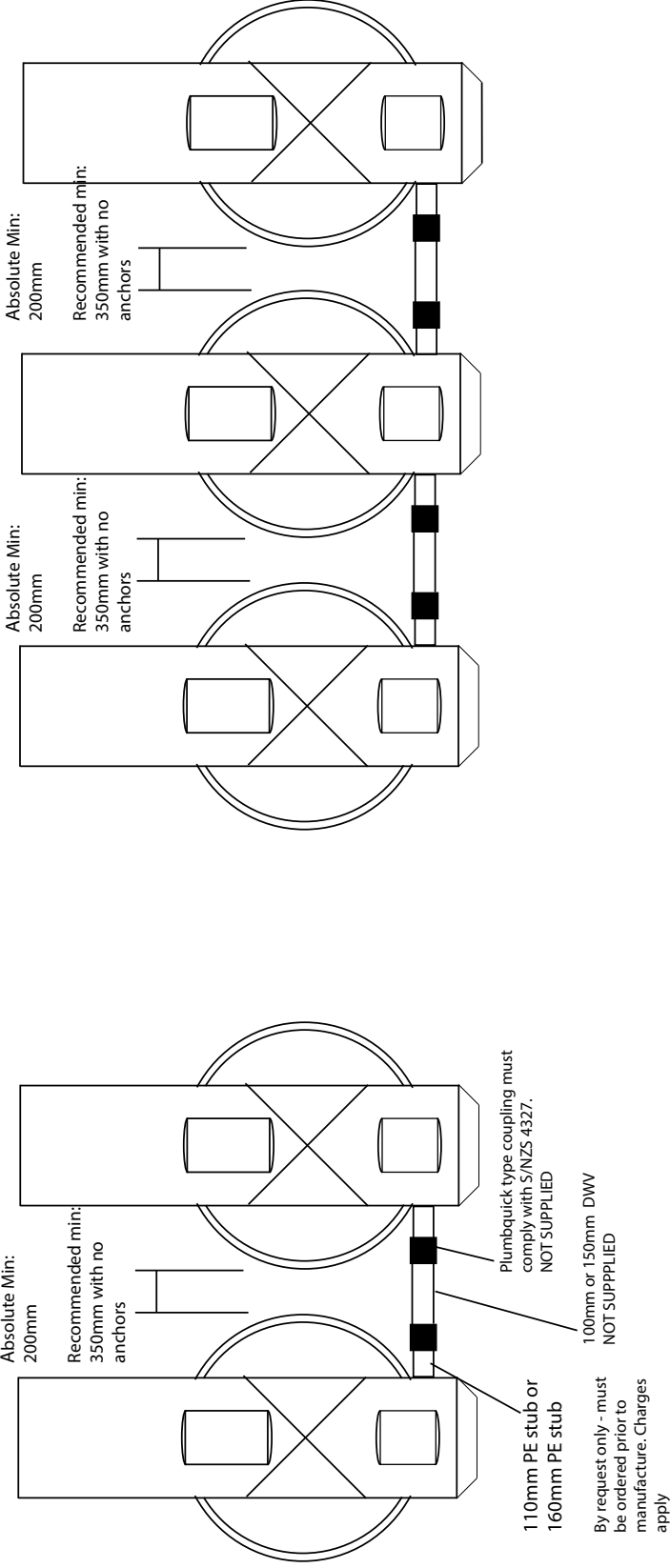
Uplift Compression Anchor system 1200 Series - Detail

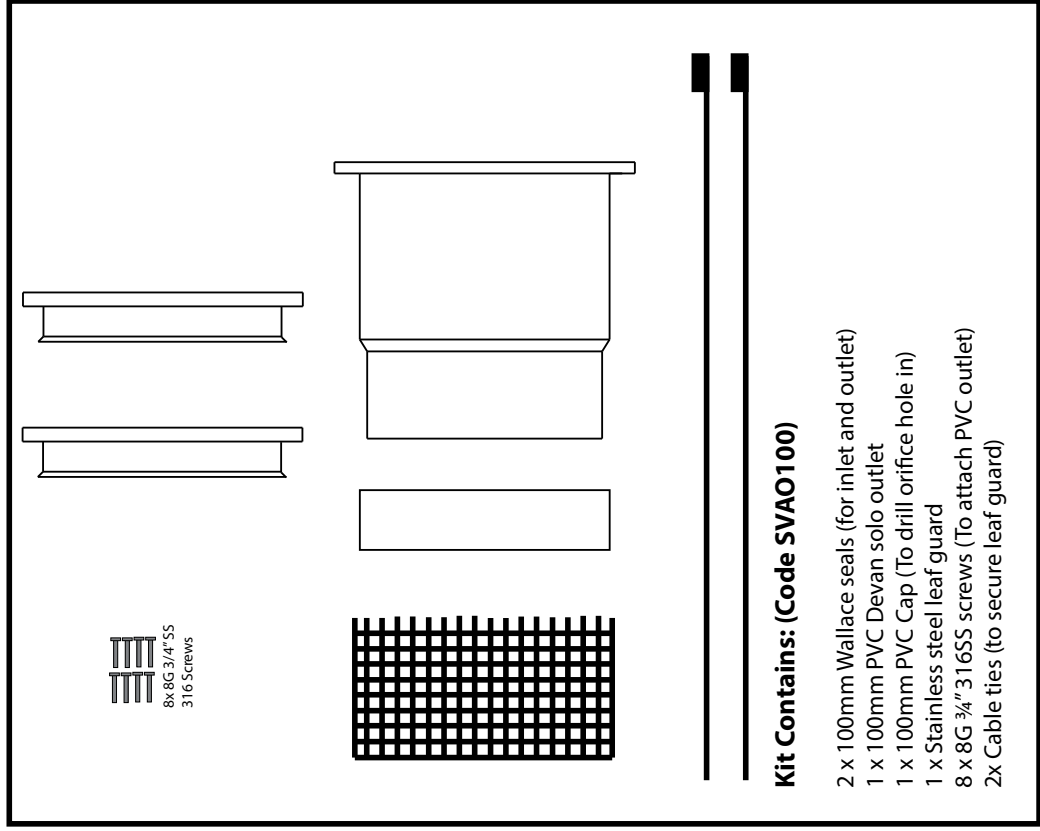
MULTIPLE TANKS

Option 1 -
Onsite

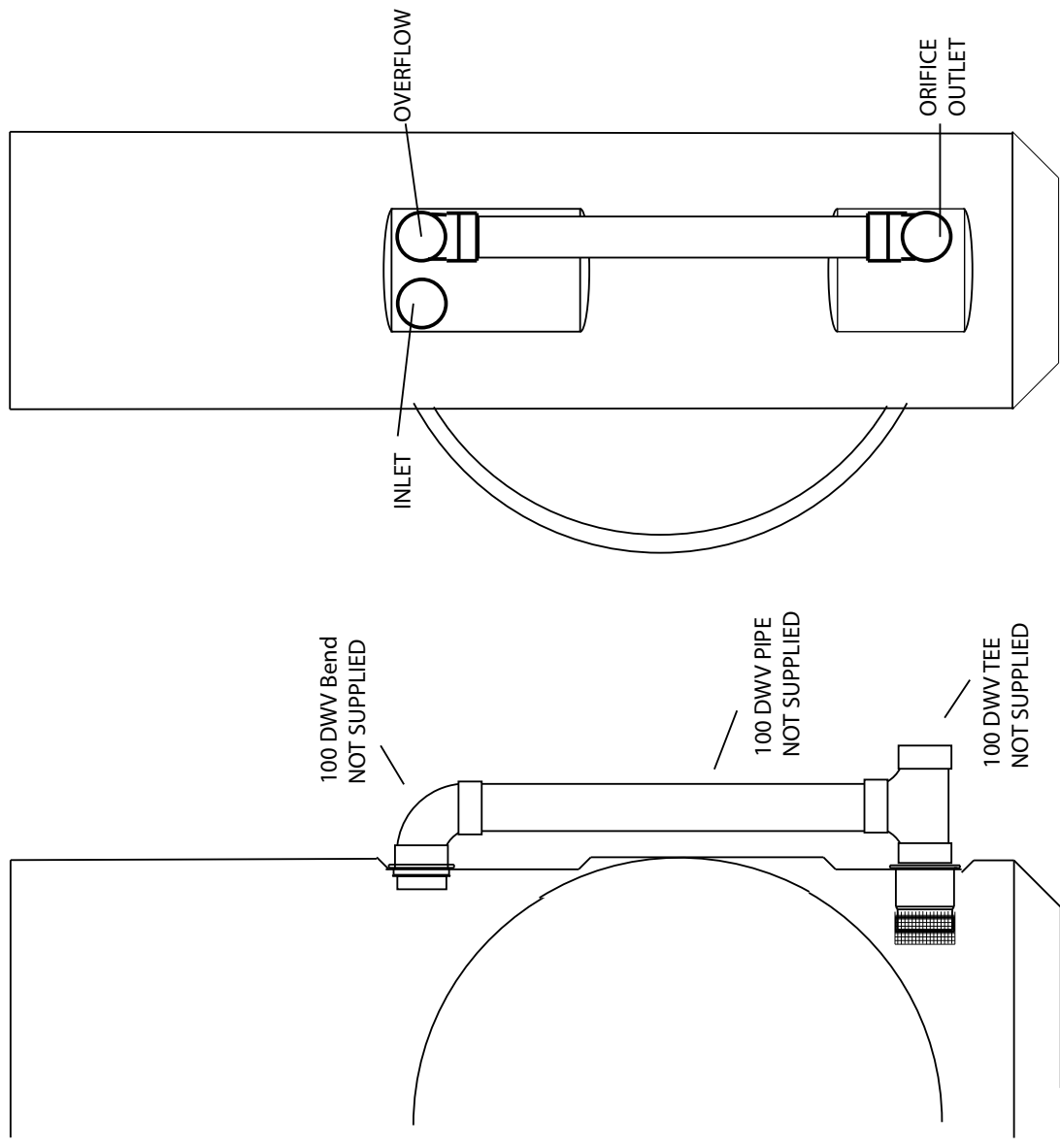


Option 2 -
PE stubs





Typical Installation:



You will need:

- 121mm hole saw (for PVC outlet and Wallace seals)
- Square drive bit for screws
- You will need neutral cure silicone (to seal flange on PVC solo outlet)
- 1x 100mm DWV tee
- 1x 100mm DWV bend 90
- 100mm DWV pipe
- Drill bit to suit orifice size

PHOTOS:









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