

Devan Stormvault

(Stormwater Management)

Technical Guide SW 26

Stormvault is a light weight retention and detention system which is manufactured from the highest quality of polyethylene.



08.24 | STORMWATER | SW26 DEVAN STORMVAULT

Applications

- Stormwater retention and detention
- Stormwater harvesting and attenuation

Product Attributes

- Light weight system
- Suitable for all ground types
- Suitable for all water tables

Available in capacities between 2,000L and 10,000L

Manufactured in New Zealand

Low maintenance requirement

- 100% recyclable

Approvals/Standards

Certified Material Standards :
AS/NZS4766:2006, AS/NZS4020:2005,
AS/NZS 2070

Standard designed to achieve
AS/NZS1546.1:2008, ARMA COP15

We are the supply partner of choice for New Zealand's stormwater management and treatment solutions.

The stormvault tanks are used for efficient retention, detention, storage and attenuation of stormwater. The tanks are available in standard sizes ranging from 2000L to 10,000L. The Stormvault tank comes with a 15 - year domestic warranty.

Product Attributes

- The tanks are manufactured using the highest quality of polyethylene available which is resistant to corrosion and is UV stabilised for New Zealand’s harsh environmental conditions. The tanks have been designed for the majority of soil types and water table conditions.
- The stormvault tanks have a unique solid filled rib design which is superior in both design and strength and is capable of withstanding pressures applied over the lifetime of the tank.
- The tank has a unique interlocking joining system that ensures that there is no strain or reliance on the weld joins.

Applications

The Stormvault tanks are suitable for domestic and commercial use. They have been built to be easily installed under a lawn, but can also be installed under a concrete drive if space is a concern for the site. The stormvault tank is not reliant on the surrounding soil structures for strength.

Components available with tank

The Stormvault can be installed along with the following accessories

- Anti Flotation anchors
The tanks can be anchored down using anti - flotation anchors which are made from high quality polypropylene restrains and 316 grade stainless steel fittings
- Standard garden lid
The standard garden lid is provided free of cost with the tank . The lid is made out of high-quality polyethylene with child resistant 316 grade stainless steel, ensuring that the lid remains secure. The lid has an internal opening of 510mm which offers easy access for inspection and maintenance.

- Ductile iron lid and adaptor
Since the tanks can be used for domestic and commercial purposes, it comes with an option of having a 600mm ductile iron lid instead of a standard garden lid. An iron adaptor kit has to be used to adapt to a standard 600mm internal clearance ductile iron lid.

TABLE 1 Stormvault Codes - 1200 Series

Product Code	Volume (Litres)	Length of the Tank (m)	Weight (kg)
STV12002000	2,000 L	2.3	170
STV12003000	3,000 L	3.2	225
STV12004000	4,000 L	4.1	280
STV12005000	5,000 L	5	340
STV12006000	6,000 L	5.9	395
STV12007000	7,000 L	6.7	450
STV12008000	8,000 L	7.7	510
STV12009000	9,000 L	8.6	570
STV120010000	10,000 L	9.5	625

TABLE 2 Accessory Codes

Product Code	Description
STVPLD	Stormvault Garden Lid Plastic - Free with Tank
STVARTLD	Stormvault Adaptor Ring and Temporary Lid - Free with Tank
STVOVERFK100	Stormvault Overflow kit 100mm
STVANCHOR1200	Stormvault anchor set - 1200mm

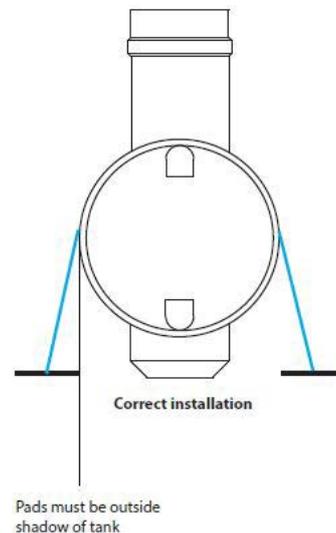
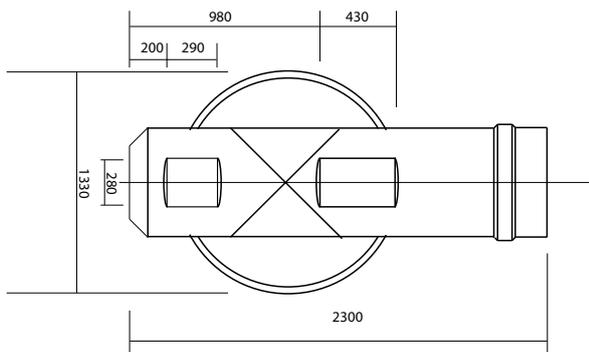
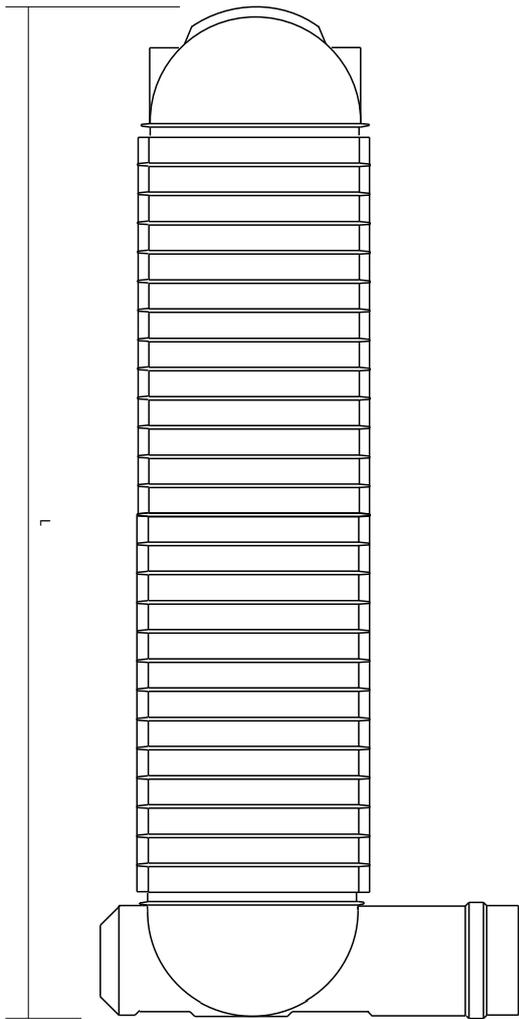
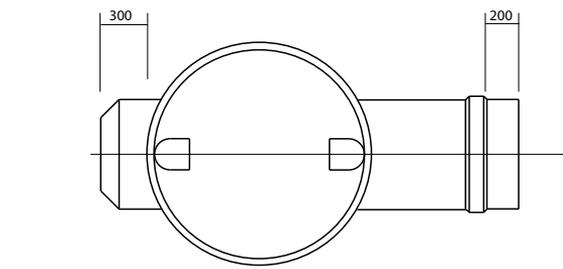


FIG. 1 Anti-Flotation Anchor



Maintenance Requirements

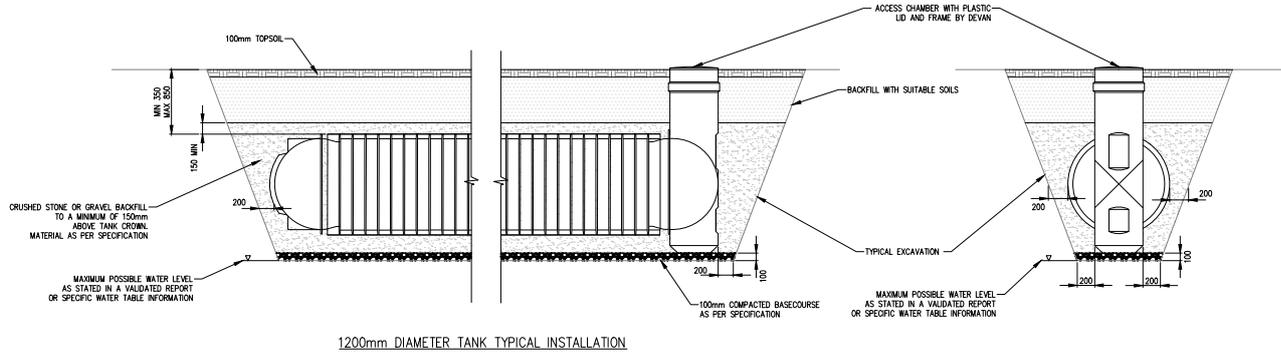
- The Stormvault tank should be visually inspected during the course of routine maintenance. The overflow mechanism, silt trap and sludge build up in the tanks will require routine maintenance. The Frequency of this maintenance will depend on the quality of stormwater.
- The Following visual checks should be carried out annually.
 - Check lids for sealing against storm water infiltration
 - Check overflow kit for blockages
 - Check orifice outlets for blockages
 - Check leaf guard for blockages
 - Check silt trap for build-up of silt, sludge or grit

FIG. 2 Underground Tank - 1200mm Series

NOTES:
 ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN
 REFER TO STRUCTURAL SPECIFICATIONS SHEET FOR CONCRETE REINFORCING & OTHER NOTES
 CONTRACTOR TO CONFIRM ALL LEVELS AND DIMENSIONS AND LOCATE AND MARK ALL SERVICES & DRAINS ON SITE BEFORE COMMENCING WORK.
 CONTRACTOR TO FOLLOW MATERIALS SPECIFICATION AND LIMITS OF LOCATION WITH RELATION TO STRUCTURES AND RETAINING WALLS

CONTRACTOR TO NOTIFY A CHARTERED PROFESSIONAL ENGINEER IF ANY OF THE DESIGN REQUIREMENTS OUTLINED IN THIS DRAWING PACKAGE ARE NOT ACHIEVABLE
 REFER TO DEVAN TANKS LTD FOR MAXIMUM BURIAL DEPTH ALLOWANCES
 TEMPORARY SUPPORT AND SHORING TO BE CARRIED OUT IN ACCORDANCE WITH WORKSAFE EDUCATION SAFETY GUIDELINES
 StormVAULT INSTALLATION TO BE CARRIED OUT IN CONJUNCTION WITH DEVAN PRODUCT INFORMATION GUIDE AND THESE DRAWINGS

NOTE: THIS SHEET IS FOR THE INSTALLATION OF TANKS ABOVE MAXIMUM POSSIBLE WATER TABLE LEVELS. SITE SPECIFIC REPORTS OR WATER TABLE INFORMATION MUST PROVE THE WATER LEVEL CAN NOT POSSIBLY RISE ABOVE THE BOTTOM OF THE EXCAVATION. IF THIS INFORMATION CAN NOT BE PROVIDED, REFER TO SHEET TUL3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND OWNER TO ENSURE CORRECT TANK INSTALLATION IN ACCORDANCE WITH THE DEVAN INSTALLATION GUIDES AND DRAWINGS



TANK LOCATION – PROXIMITY TO NEARBY STRUCTURES:
 THE LOCATION OF THE TANK EXCAVATION IS THE RESPONSIBILITY OF THE CONTRACTOR AND THE TANK OWNER. THE CONTRACTOR IS TO FOLLOW THE LIMITATIONS OF THE DIAGRAMS SHOWN OR NOTIFY A CHARTERED PROFESSIONAL ENGINEER FOR A SITE SPECIFIC CONSULTATION CONTRACTOR TO ENSURE NEARBY FOUNDATIONS OF NEW AND/OR EXISTING STRUCTURES ARE NOT UNDERMINED BY THE EXCAVATION FOR THE TANK.

EXCAVATION CLEARANCE:
 CONTRACTOR TO ENSURE A MINIMUM OF 200MM BETWEEN EDGE OF TANK AND EDGE OF EXCAVATION WALL AT THE NARROWEST LOCATION.

BACKFILL AND BASECOURSE:
 BACKFILL AND BASECOURSE MATERIAL TO BE EITHER:
CRUSHED STONE OR GRAVEL: WASHED, WITH ANGULAR PARTICLE SIZES NO LARGER THAN 13.2MM WITH NO MORE THAN 5% PASSING A 2.36MM SIEVE. DRY DENSITY MUST NOT BE LESS THAN 1500KG/CUBIC METRE.
 APPROVED BACKFILL SHOULD NOT BE MIXED WITH SAND OR NATIVE SOILS AND SHOULD ALWAYS BE BROUGHT UP TO AT LEAST THE TANK CROWN LEVEL. THE USE OF NON-SPECIFIED BACKFILL MATERIAL COULD RESULT IN TANK FAILURE. (I.E. CAP10)
 OR IF CRUSHED STONE/GRAVEL NOT AVAILABLE, SPECIFIC QUARRY AGGREGATE MIX REQUIRED AS BELOW:
NATURALLY BOUNDED GRAVEL: CLEAN NATURALLY-ROUNDED AGGREGATE WITH PARTICLE SIZES NO LARGER THAN 19MM WITH NO MORE THAN 5% PASSING A 2.36MM SIEVE. DRY DENSITY MUST NOT BE LESS THAN 1500KG/CUBIC METRE.

CONTRACTOR TO WORK IN MAXIMUM BACKFILL LIFTS OF 300MM. AFTER EACH LIFT, CONTRACTOR TO USE LONG HANDED PROBE TO WORK THE BACKFILL MATERIAL UNDER THE ENTIRE LENGTH OF THE TANK AND WITHIN ANY RIBS. ALL VOIDS AND SPACES SHOULD BE FILLED TO ENSURE ADEQUATE SUPPORT OF TANK.

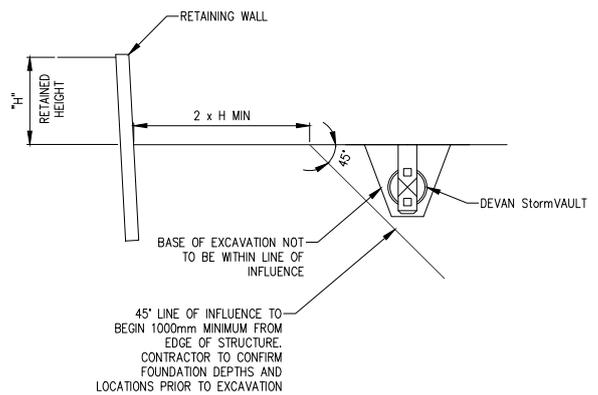
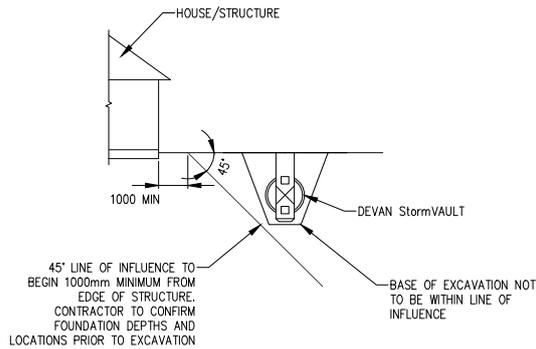


FIG. 3 General Arrangement Drawing

Branches Nationwide Support Office & Technical Services 0800 93 7473

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