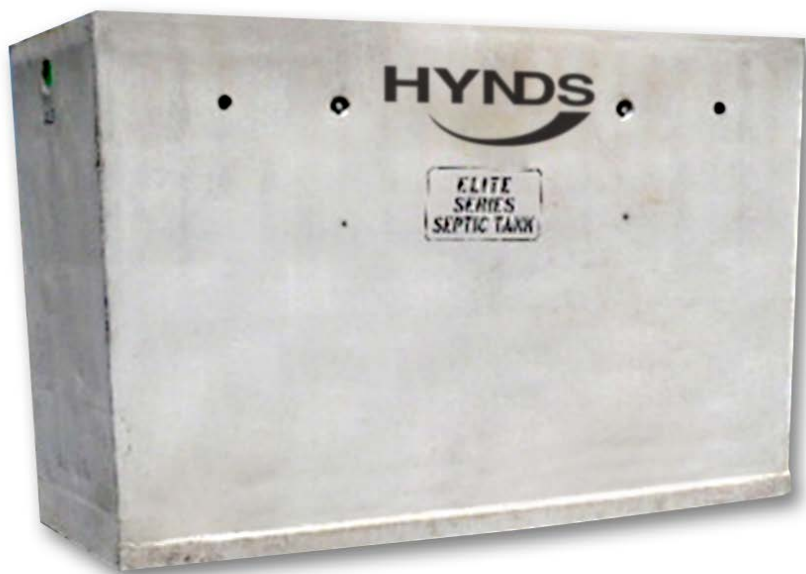


# Hynds Concrete Septic Tanks

Technical Guide WW 5

Hynds manufacture robust, high-quality concrete Elite Series septic tanks.



08.25 | WASTEWATER | WW05 HYNDS CONCRETE SEPTIC TANKS

### Applications

- Residential 3300L Septic Tank
- Domestic or commercial
- For low environmental impact areas

### Product Attributes

- Range of outlet filters
- Single or dual stage tank
- Passive outlet or pump chamber options
- Fully sealed and robust
- Easy installation

### Sustainability

- Customisable for climate-resilient infrastructure

### Quality/Environment/Health & Safety

- Hynds management systems are certified to ISO 9001:2015, 45001:2015, and 14001:2018 standards

# Hynds Elite Series Septic Tanks - robust, high-quality concrete.

The tank's purpose is to separate solids from the household wastewater, store and partially decompose as much solid material as possible, while allowing the liquid (or effluent) to travel into the drain field which further assists break down of the waste to be safely taken into the environment.

## Design Specifications

- 3300 Litre working capacity.
- Tank and lid components manufactured from steel reinforced high strength concrete.
- Rebated lid allows a water-tight seal between the precast lid and the tank walls.
- Air breathing space located above working level results in optimum performance.
- Precast concrete lid load capacity please refer to page 3.
- Inverted precision steel moulds fabricate each tank within a single production casting.
- Fitted internally with standard, 100 mm diameter, uPVC septic tank square junctions on inlet and outlet.

## Fitout Options

- To allow complete versatility when planning a septic tank installation, the Elite Series Septic Tank offers factory-fitted filter options to increase treatment performance and reduce disposal field blockages:
  - Single chamber – outlet filter Polylok PL122 with outlet .
  - Dual chamber – outlet filter T100. Fitted with leak-proof baffle to enhance flow control and solids settling.
  - Dual chamber with filter and pump (sized to suit application)

## Lifting

- Lifted by integrated foot anchors or by securing equal length chains or straps beneath the outside lifting steps.
- Safe lifting practices should be followed during lifting and manoeuvring of the septic tank.
- Lifting equipment specifications as per document D10.1 Lifting Equipment and Lifestyle Technical Support Sheet – Installation Procedures Information

All Hynds Concrete Septic Tanks incorporate Swiftlift lifting anchors for safe lifting and must be used with the correct lifting clutch.

Hynds Pipe Systems has designed and manufactured Hynds Concrete Septic Tanks with a minimum dynamic factor of

1.2. This dynamic factor requires that all the following conditions are observed when lifting, moving or placing the pipes:

1. Lifting with mobile plant (*such as an excavator or similar*) where equipment is specifically exempt from the requirements of the PECPR Regulations 1999, subject to the conditions outlined in the New Zealand Gazette, No. 104, September 2015 and
2. Lifting, travelling and placing over rough or uneven ground where anchor failure is not anticipated to cause harm or injury, by adopting procedures such as:
  - a. Transporting the element as close as practical to ground level (300mm recommended)
  - b. Establishing and maintaining exclusion zones
  - c. Transporting only precast concrete elements that are unlikely to topple if they were to hit the ground
  - d. Inspecting lifting anchors both after transportation and before final lifting into place
3. Hynds uses both Reids and Ancon lifting anchors which are both designed to (*Haeussler*) specifications and as such are compatible with Reid, Deha or Ancon anchors, clutches, and recess formers of the same load range.

Refer to "Safe work with precast concrete - Handling, transportation and erection of precast concrete elements" published by Worksafe New Zealand (October 2018)

Shock loads resulting from travelling with suspended Hynds Concrete Septic Tanks over rough terrain and uneven ground may exceed design, dynamic and safety factors of the lifting systems. It is essential that care is taken during lifting and transporting as additional stresses could result in anchor failure.

## Installation

- Septic tanks should be installed in stable soil conditions.
- Surface storm water should be diverted away from the tank and drainage field location to prevent water ingress.
- Ensure the horizontal joint between the lid and tank can be sealed.
- Check with your local council drainage authority for requirements on septic tank location and the drainage system for your site.
- Following installation, tanks should be immediately filled with water to avoid floatation.

**TABLE 1 Septic Tanks North Island**

Product Code	Description	Dim A (mm)	Dim B (mm)	Dim C (mm)	Dim D (mm)	Dim E (mm)	Mass (kg)	Load case
<b>3300 AUCKLAND</b>								
SEP3300T	Septic tank conc 3300L 1 Chamber - no lid	1200	2575	1700	1515	1450	2230	1
SEP3300DT	Septic tank conc 3300L 2 Chambers - no lid	1200	2575	1700	1515	1450	2573	1
SEP3300LZ150	Septic tank Lid conc 3300L 150mm thick (lid only)	1200	2575	150			1165	1
<b>3300 PALMERSTON NORTH</b>								
SEP3300T3	Septic tank conc 3300L 1 Chamber - no lid	1200	2575	1700	1515	1450	2632	1&2
SEP3300T3D	Septic tank conc 3300L 2 Chambers - no lid	1200	2575	1700	1515	1450	2928	1&2
SEP3300T3L150S (No cover above inspection chamber)	Septic tank lid conc 3300L 150mm thick (1 x IC600300) (lid only)	1220	2595	150			1170	1
SEP3300T3L150D (No cover above inspection chamber)	Septic tank lid conc 3300L 150mm thick (2 x IC600300) (lid only)	1220	2595	150			1150	1
<b>4500 AUCKLAND</b>								
SEP4500EST	Septic tank conc 4500L 1 chamber - no lid	1240	3300	1815	1600	1545	3800	1&2
SEP4500EDT	Septic tank conc 4500L 2 chambers - no lid	1240	3300	1815			4100	1&2
SEP4500EL150	Septic tank Lid 1 Chamber conc 4500L 150mm thick (2 conc Plug) (lid only)	1240	3300	150			1500	1&2
SEP4500EL150D	Septic tank Lid 2 Chambers conc 4500L 150mm thick (2 x 150mm riser & conc) (lid only)	1240	3300	150				1

**TABLE 2 Septic Tanks South Island**

<b>3300L HORNBY</b>								
SEP3300MC	Septic tank conc 3300L 1 chamber - no lid	1166	2350	1840	1655	1590	2450	1&2
SEP3300PMC	Septic tank conc 3300L 2 chambers - no lid	1166	2350	1840	1655	1590	2950	1&2
SEP3300MCT	Septic tank lid conc 3300L 150mm (1 conc Plug) (lid only)	1166	2350	150			510	1
SEP3300MCTH	Septic tank lid conc 3300L 200mm (1 conc Plug) (lid only)	1166	2350	200			965	1&2
<b>5000L HORNBY</b>								
SEP5000F	Septic tank conc 5000L 3 chambers including 80mm lid & T300 Filter	1610	3610	1535	1300	1250	5920	3
SEP5000FP	Septic tank conc 5000L 3 chambers including 80mm lid, T300 Filter & JX180 Pump	1610	3610	1535	1300	1250	5920	3
SEP5200MC	Septic tank conc 5200L 3 Chambers including 80mm lid & footing	1610	3610	1535	1300	1250	5920	3
SEP5200MCS	Septic tank conc 5200L 1 Chamber including 80mm lid & footing	1610	3610	1535	1300	1250	5920	3
<b>4500L WINTON</b>								
SEP4500ESTFBW	Septic tank conc 4500L 1 Chamber including footing - no lid	1280	2990	1910	1690	1610	3590	1&2
SEP4500EL150W	Septic tank Lid conc 4500L 150mm thick (lid only)	1260	2990	150			1220	1&2

**TABLE 3 Double Chamber Septic Tank 4500L**

Description	Width A (mm)	Length B (mm)	Height C (mm)	Base to bottom of inlet D (mm)	Base to bottom of outlet E (mm)	Weight (kg)	Load case
<b>4500L WINTON</b>							
Septic tank concrete 4500L with 150mm - no lid	1280	2990	1910	1515	1450	4360	1
Septic tank concrete 4500L lid	1260	3000	150	1515	1450	1200	1
Load case 1 – 300mm cover above lid + 1.5kPa(150kg/m <sup>2</sup> ) surcharge unless otherwise stated							
All measurements are external dimensions							

**ACCESSORIES**

PL122 - Septic tank outlet filter	-
T100 - Septic tank Outlet filter	-
Pumps – various sizes	-
Alarm – High level	-

**Notes:**

- Load case 1 – 300mm cover above lid + 1.5kPa(150kg/m<sup>2</sup>) surcharge unless otherwise stated
- Load case 2 – No cover above lid + 20kN(2T) single wheel load
- Load case 3 – 80mm thick lid, no soil on top, 1.5kPa (150kg/m<sup>2</sup>) surcharge unless otherwise stated
- All measurements are external dimensions
- The combination of tank and lid must conform to identical load cases. (eg. If load case 2 is selected, then both tank and lid must comply with load case 2).



FIG. 1 Pumps



FIG. 2 T100 Filter

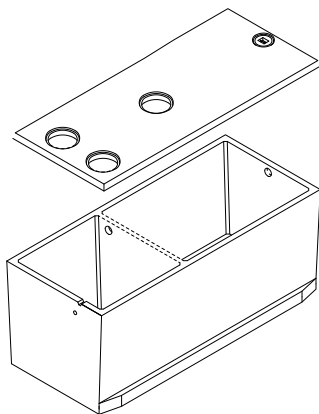


FIG. 3 Single, dual or triple Chamber

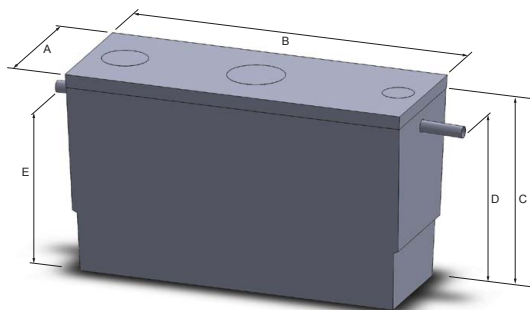


FIG. 4 Single, dual or triple Chamber

## Septic Tank Use

- Size of tank: see council requirements for tank sizing
- Filter:  
A septic tank should have a well performing outlet filter which will reduce surging and prevent solid material entering the drainfield
- Chemicals:  
All household cleaning products should be labelled septic tank friendly. Avoid inserting bleach and harsh chemicals which destroy the working bacteria within the tank.
- Drain field:  
Ensure the drainfield is not located in traffic or stock grazing areas.

## Maintenance

- A septic tank requires routine emptying of solid indigestible matter which collects on the bottom of the tank. Recommended 3-5 yearly.
- The septic tank outlet filter should be checked for cleaning 6 monthly.
- Ensure the drainfield does not have any wet or saturated areas which might indicate failure.

## Items that should not be inserted into a wastewater treatment system

- |  |  |
|--|--|
| ■ Sanitary towels, nappies, baby wipes       | ■ Acids                                |
| ■ Coffee grounds                             | ■ Pesticides, herbicides               |
| ■ Antibiotics or pharmacy drugs              | ■ Pesticides                           |
| ■ Dyes                                       | ■ Solvents                             |
| ■ Fatty or oily substances, e.g. food scraps | ■ Oil, lubes, thinners, spirit, paints |
| ■ Fibres, cloths                             | ■ Dressings, paper towels, plaster     |
| ■ Cigarette stubs                            |  |

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**Disclaimer:** While every effort has been made to ensure that the information in this document is correct and accurate, users of Hynds product or information within this document must make their own assessment of suitability for their particular application. Product dimensions are nominal only, and should be verified if critical to a particular installation. No warranty is either expressed, implied, or statutory made by Hynds unless expressly stated in any sale and purchase agreement entered into between Hynds and the user.