Grease Trap System

Technical Guide WW 9

Hynds Precast Concrete Grease Trap units offer a simple and effective solution that intercepts and retains the flow of greasy fluids and solids prior to pipe networks.

08.25 | WASTEWATER | WW09 HYNDS GREASE TRAP SYSTEM

Applications

Cafés and restaurants

Commercial kitchens and galleys

Treatment systems in unsewered areas

Product Attributes

Simple to install and easy to maintain

Manufactured from high strength, steel reinforced concrete

Designed to ensure the effective congealing of grease

Watertight joint between precast lid and tank

Approvals/Standards

NZS 3109, Concrete Construction

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

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Hynds Precast Concrete Grease Trap Units are fabricated in inverted precision steel moulds providing a high quality finish.

Grease that is hot or contained in hot water maintains a liquid state. However, when allowed to cool, grease sticks to the sides of the pipes and causes blockages.

Hynds Grease Trap units intercept and retain greasy fluid within the multi chambered tank prior to drain discharge. The Grease Trap Unit features openings in each chamber forcing the liquid to follow the longest route towards the outlet while trapping grease as it rises to the surface in a semi-solidified state (settle-able solids can be retained in the base of the units)

Unit Options

Hynds Grease Trap units are available in a number of sizes, fitting diameters and material options to match the application requirements:

- Multiple chamber options.
- Earthenware or uPVC fittings options – earthenware is the standard fitting choice and is recommended whenever intercepting liquids containing hot greases or corrosive chemicals.
- Earthenware fittings in 100 mm and 150 mm.
- Range of lid thicknesses and options with cast iron access covers.

Items to be supplied separately to the unit:

- An accessible inspection fitting must be placed at both the inlet and outlet ends of the unit to allow rod clearing of any blockages.
- Pipe and fittings need to be connected to the outside of the unit, dependent on the type of liquid being conveyed. If the liquid is likely to be hot, earthenware components should be used. PVC plastic pipe and fittings can only be used if approved by the local authority.
- Appropriate sealing products such as mastic must be used to reduce the entry of storm water through the lid. Refer to your local Hynds branch.

Installation

- Tank and lid are supplied separately for easier installation.
- Hynds Grease Trap units are manufactured with lifting anchors cast into the concrete and must be handled using appropriate lifting equipment.
- Tank units must be placed on solid compacted level hardfill and surrounded by compacted backfill to avoid settlement and ensure correct performance.
- The working level of the tank is controlled by the height of the outlet pipe invert. Levels relative to the tank bottom are shown in Table 1 and Figure 2.

FIG. 1 Grease trap being placed on site

Unit Maintenance

- The efficiency of a Hynds Grease Trap unit is dependent on the use and attention it receives.
- To obtain the full benefit of the unit, frequent removal of trapped oils, grits and solids is required.
- Cleaning frequency can only be determined after normal use and will vary with each application.
- Solid grease removed from a Hynds Grease Trap must be disposed of in accordance with local authority regulations.

TABLE 1 Grease Trap – Tank only

Product Code	Description	Capacity (Litres)	Number of Chambers	Dim A (mm)	Dim B (mm)	Dim C (mm)	Dim D (mm)	Dim E (mm)	Mass (kg)	Shipped from	Load case
GT0114	114 L Concrete Grease Trap	114	1	600	840	600	400	Min. 670	384	Pokeno	1&2
GT0445	445 L Concrete Grease Trap (Hamilton Version)	445	3	800	1550	990	620	Min. 670	1430	Pokeno	1
GT0445A	445 L Concrete Grease Trap (Auckland Version)	445	3	800	1550	990	620	Min. 670	1430	Pokeno	1
GT0445T	445 L Concrete Grease Trap (Tauranga Version)	445	2	800	1550	990	620	Min. 670	1390	Pokeno	1
GT0500MC	500 L Concrete Grease Trap	500	2	830	1300	1200	875	925	1900	Christchurch & Amberley	1&2
GT0667	667 L Concrete Grease Trap	667	3	960	1670	1100	775	825	1992	Palmerston	1&2
GT1000FB	1000 L Concrete Grease Trap Flange Based	1000	2	Ø1194 (200mm FB)	-	1568	1330	1380	2473	South Island	3
GT1000FBP	1000 L Concrete Grease Trap	1000	2	Ø1186 (150mm FB)	-	1661	1430	1480	2548	North Island	3
GT3000T100	3000 L Concrete Grease Trap (100 mm fittings)	3000	3	1150	2340	1700	1450	Min. 1500	2535	Pokeno	1&2
GT3000T150	3000 L Concrete Grease Trap (150 mm fittings)	3000	3	1150	2340	1700	1450	Min. 1500	2535	Pokeno	1&2
GT3300T3100	3300 L Concrete Grease Trap (100 mm fittings)	3300	3	1200	2575	1700	1590	1640	3187	Palmerston	1&2
GT3300T3150	3300 L Concrete Grease Trap (150 mm fittings)	3300	3	1200	2575	1700	1590	1640	3187	Palmerston	1&2
GT3300LT100	3300 L Concrete Grease Trap (100 mm fittings)	3300	3	1150	2350	1840	1590	1640	2950	Christchurch & Amberley	1&2
GT3300LT150	3300 L Concrete Grease Trap (150 mm fittings)	3300	3	1150	2350	1840	1590	1640	2950	Christchurch & Amberley	1&2
GT4500T150	4500 L Concrete Grease Trap (150 mm fittings)	4500	3	1225	3300	1815	1565	1615	4420	Pokeno & Winton	1&2

Notes:

- *The 114 L grease trap is supplied with external fittings.*
- *Suggested invert levels (dimensions D and E) are indicative only and may vary depending on inlet/outlet pipe O.D.'s*
- *Prices may vary depending on your location.*
- *4500 L grease trap units can be manufactured to order only.*
- *Appropriate lift clutch unit to be used according to each lifting anchor.*
- *All measurements are external dimensions.*
- *Load case 1 – 300mm cover above lid + 1.5kPa(150kg/m²) surcharge unless otherwise stated*
- *Load case 2 – No cover above lid + 20kN(2T) single wheel load*
- *Load case 3 – No cover above lid + 60kN(6T) single wheel load*

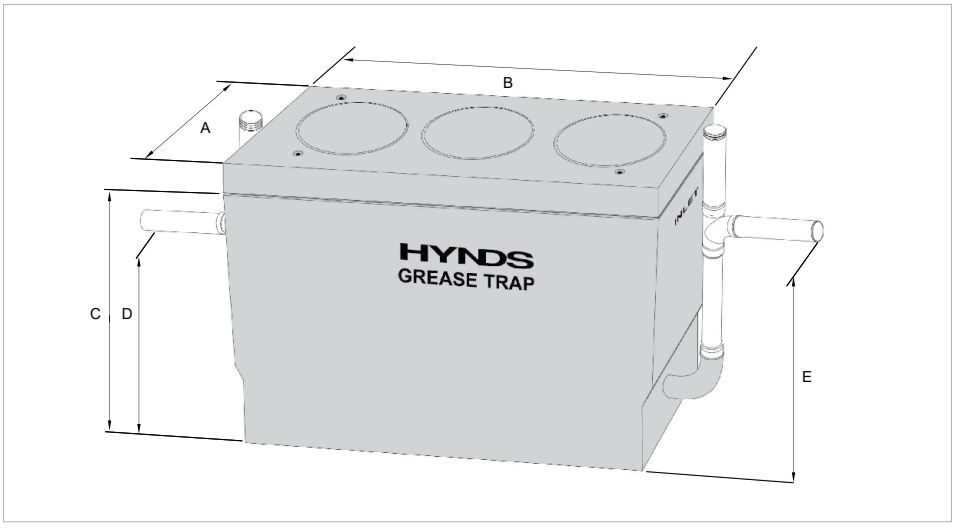

FIG. 2 General Dimensions

TABLE 2 Grease Trap Lid Options

Product Code	Description	Mass (kg)	Shipped from	Load Case
114 L Tank				
GTL0114.100	100 mm Height Light Duty Grease Trap Lid	122	Pokeno	1
GTL0114.150	150 mm Height Light Duty Grease Trap Lid	183	Pokeno	1&2
445 L Tank				
GTL0445.100NC	100 mm Height Light Duty Grease Trap Lid without Cast Iron Covers	287	Pokeno	1
GTL0445.150H	150 mm Height Heavy Duty Grease Trap Lid with Cast Iron Covers	456	Pokeno	1
500 L Tank				
GT0500LT100	105 mm Height Light Duty Grease Trap Lid	280	Christchurch	1
GT0500LT150	150 mm Height Light Duty Grease Trap Lid	390	Christchurch & Amberley	1&2
667 L Tank				
GTL0667.150NC	150 mm Height Heavy Duty Grease Trap Lid	647	Palmerston	1&2
1000L Tank				
GTL1000.200NC	200mm Height Heavy Duty Grease Trap Lid without Cast Iron Covers	471	South Island	3
GTL1000.200NCP	200mm Height Heavy Duty Grease Trap Lid without Cast Iron Covers	471	North Island	3
3000 L Tank				
GTL3000.260H	260 mm Height Light Duty Grease Trap Lid with Cast Iron Covers	1796	Pokeno	1&2
GTL3000.150NC	150 mm Height Light Duty Grease Trap Lid without Cast Iron Covers	820	Pokeno	1
GTL3000.200.3NC	200 mm Height Heavy Duty Grease Trap Lid without Cast Iron Covers	1090	Pokeno	1&2
3300 L Tank				
GTL3300T3.150H	150 mm Height Light Duty Grease Trap Lid without Cast Iron Covers	920	Palmerston	1
GTL3300T3.200H	200 mm Height Heavy Duty Grease Trap Lid without Cast Iron Covers	1227	Palmerston	1&2
GTL3300.200H	200 mm Height Heavy Duty Grease Trap Lid with Cast Iron Covers	1188	Christchurch & Amberley	1&2
4500 L Tank				
GTL4500.150NC	150 mm Height Heavy Duty Grease Trap Lid without Cast Iron Covers	1133	Pokeno	1&2
GTL4500.150FC3	150 mm Height Heavy Duty Grease Trap Lid with Cast Iron Covers	1455	Pokeno	1

Notes:

- *Load case 1 – 300mm cover above lid + 1.5kPa(150kg/m²) surcharge unless otherwise stated*
- *Load case 2 – No cover above lid + 20kN(2T) single wheel load*
- *Load case 3 – No cover above lid + 60kN(6T) single wheel load*
- *All measurements are external dimensions.*
- *The combination of tank & 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).*

Lifting and Handling

All Grease Trap Systems incorporate Swiftlift lifting anchors for safe lifting and must be used with the correct lifting clutch.

Hynds Pipe Systems has designed and manufactured Grease Trap Systems 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 tanks:

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 Grease Trap Systems 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.