# **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.



#### **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



# 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.

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

# Notes:

■ The 114 L grease trap is supplied with external fittings.

Trap (150 mm 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.
- 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

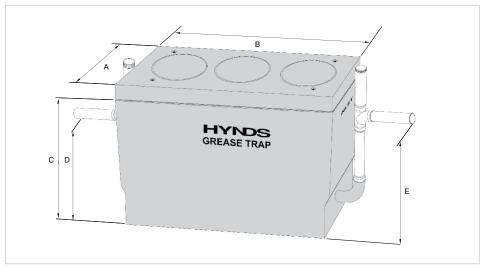


FIG. 2 General Dimensions

**TABLE 2** Grease Trap Lid Options

| Product Code    | ode Description   |      | Shipped from | Load Case |  |
|-----------------|---|------|--------------|-----------|--|
| 114 L Tank      |   |      |              |           |  |
| GTL0114.100     | 100 mm Height Light Duty Grease Trap Lid                          | 122  | Põkeno       | 1         |  |
| GTL0114.150     | 150 mm Height Light Duty Grease Trap Lid                          | 183  | Pōkeno       | 1&2       |  |
| 445 L Tank      |   |      |              | -         |  |
| GTL0445.100NC   | 100 mm Height Light Duty Grease Trap Lid without Cast Iron Covers | 287  | Pōkeno       | 1         |  |
| GTL0445.150H    | 150 mm Height Heavy Duty Grease Trap Lid with Cast Iron Covers    | 456  | Pōkeno       | 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 | 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 | Pōkeno       | 1&2       |  |
| GTL3000.150NC   | 150 mm Height Light Duty Grease Trap Lid without Cast Iron Covers | 820  | Pōkeno       | 1         |  |
| GTL3000.200.3NC | 200 mm Height Heavy Duty Grease Trap Lid without Cast Iron Covers | 1090 | Pōkeno       | 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 | 1&2       |  |
| 4500 L Tank     |   |      |              |           |  |
| GTL4500.150NC   | 150 mm Height Heavy Duty Grease Trap Lid without Cast Iron Covers | 1133 | Pōkeno       | 1&2       |  |
| GTL4500.150FC3  | 150 mm Height Heavy Duty Grease Trap Lid with Cast Iron Covers    | 1455 | Pōkeno       | 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 feature certified concrete lifting anchor systems, designed and tested to guarantee safe and secure handling.

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:

- 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:
  - 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. All Hynds concrete lifting anchor systems are engineered in accordance with Haeussler specifications, ensuring full compatibility with Reid, Deha, CLS, and Ancon lifting clutches, as well as recess formers, across corresponding load ranges.

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.

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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.

