

Hynds Oil and Grit Interceptor System

(Oil & Water Management)

Technical Guide SW 6

Hynds Oil and Grit Interceptors offer a simple and effective solution to separate and retain oil and grits from lightly contaminated washwater or stormwater prior to discharging to downstream pipe networks.



06.24 | STORMWATER | SW6 HYNDS OIL AND GRIT INTERCEPTOR SYSTEM

Applications

- Garages
- Driveways
- Paved parking areas
- Trap prior to a retention pond
- Heavy duty application

Product Attributes

- Manufactured from high strength steel reinforced concrete
- Robust and easy to maintain
- Watertight seal between precast concrete lid and tank walls
- Multiple chambers for greater efficiency

Approvals/Standards

NZS 3109, Concrete Construction

Quality

ISO 9001:2008 Quality Management

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



Hynds oil and grit interceptors are a sought after solution used for the separation of oil and grits from stormwater runoffs from areas such as light commercial areas, garages, truck stops, paved parking areas and service stations.

Unit options available

1. Heavy duty oil and grit interceptor (Refer Figure 1)
 - The Heavy Duty oil and grit interceptor is a twin chambered unit made out of two flange based manholes and offers a premium level of treatment
 - 3000L and 4500L units are available for use
 - It can be designed for multiple loading requirements (Please contact the stormwater team at Hynds)
 - The standard loading for a HD oil and grit interceptor is HD60 but it can be designed for HN-HO-72
 - The HD oil and grit interceptors have 150mm diameter internal pvc fittings
 - These units can be provided with risers in order to satisfy the lid level requirement at your site with ease.
2. Light duty oil and grit interceptor (Refer Figure 2)
 - The Light Duty oil and grit interceptors are rectangular in shape and offer a basic level of treatment.
 - They are fabricated in inverted precision steel moulds that produce a high quality finish.
 - 3000 L and 3300L units are available, with 100 or 150mm diameter earthenware fittings
 - Standard 150mm thick precast concrete lids are suitable for light traffic. Thicker lids for heavier application are available on request
 - The standard loading for a LD oil and grit interceptor is LD20

Installation

- Precast concrete tank and lid are supplied separately for easier transport, unloading and installation.
- Hynds Oil and Grit Interceptors are manufactured with lifting anchors cast into the concrete and must be handled using a spreader beam.
- Tank units must be placed on solid compacted level hardfill and surrounded by compacted backfill to avoid settlement.
- Pipework and couplers are not supplied as part of the unit.

- The heavy duty oil and grit interceptor units include Ø150mm internal pvc fittings and pvc starter. The light duty oil and grit interceptor units include Ø100mm or Ø150mm earthenware pipe projected from the tank outlet for pipeline connection

Unit Maintenance

- The efficiency of a Hynds Oil and Grit Interceptor system is dependent on the application, hydraulic loads and attention it receives.
- To obtain the full benefit of the unit, regular removal of trapped oils and grits is required.
- The cleaning frequency is determined after normal use and will vary with each application.
- Trapped pollutants removed from a Hynds Oil and Grit Interceptor must be disposed of in accordance with local authority regulations.
- The maintenance frequency is best determined by visual observation. During the first year of operation, a Hynds oil and grit interceptor system should be inspected monthly or bimonthly to determine the frequency of maintenance.
- Cleaning should be arranged when 50% of the hydrocarbon retention capacity is reached and should be conducted by approved waste removers.
- Cleaning involves the removal of all water and waste content within the chambers and sump vacuuming of the heavier sediments at the bottom of the chambers
- If tank entry is required for the manual removal of sediment, or for cleaning, then such an entry practice is classified as a Confined Space Entry, i.e. work in such an environment must be carried out to comply with the appropriate OSH Code of Practice, and in accordance with AS2865 1995 - "Safe Working in Confined Space".
- The Oil and Grit Interceptor should be refilled with clean water to allow the system to operate effectively straight after maintenance.

FIG. 1 HD oil and grit interceptor

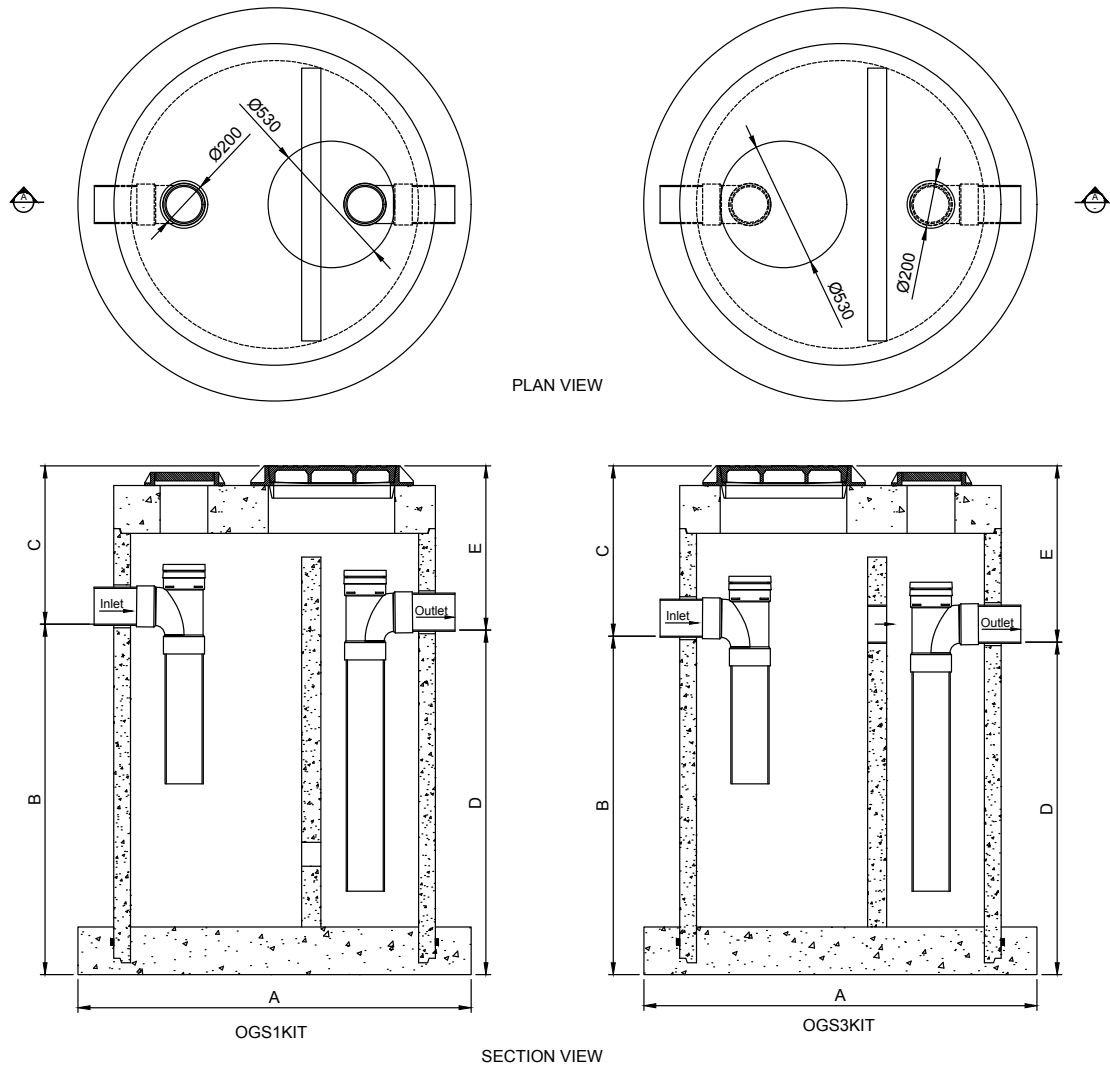


TABLE 1 3000L Hynds Heavy Duty Kit system - Oil and Grit Interceptor system

Product codes: OGS1KIT + OGS3KIT

Total tank Capacity: 3000 L

| Chamber | Internal Fittings Ø (mm) | Chamber dimensions (Refer Figure 1) | | | | | Lid Thickness (mm) | Lid openings | Total Mass (T) | Shipped from |
|---------|--------------------------|---------------------------------------|--------|--------|--------|--------|--------------------|--------------|----------------|--------------|
| | | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | | | | |
| OGS1KIT | 150 | 1647 | 1469 | 663 | 1444 | 688 | 200 | 2 | 3.51 | Auck/Chc |
| OGS3KIT | 150 | 1647 | 1419 | 713 | 1394 | 738 | 200 | 2 | 3.86 | Auck/Chc |

TABLE 2 4500L Hynds Heavy Duty Kit system - Oil and Grit Interceptor system

Product codes: OGS4KIT + OGS5KIT

Total tank Capacity : 4500 L

| Chamber | Internal Fittings Ø (mm) | Chamber dimensions (Refer Figure 1) | | | | | Lid Thickness (mm) | Lid openings | Total Mass (T) | Shipped from |
|---------|--------------------------|---------------------------------------|--------|--------|--------|--------|--------------------|--------------|----------------|--------------|
| | | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | | | | |
| OGS4KIT | 150 | 2307 | 1167 | 708 | 1142 | 733 | 200 | 3 | 6.201 | Auck/Chc |
| OGS5KIT | 150 | 2307 | 1117 | 758 | 1092 | 783 | 200 | 3 | 6.201 | Auck/Chc |

TABLE 3 Hynds Light duty oil and grit interceptor dimensions

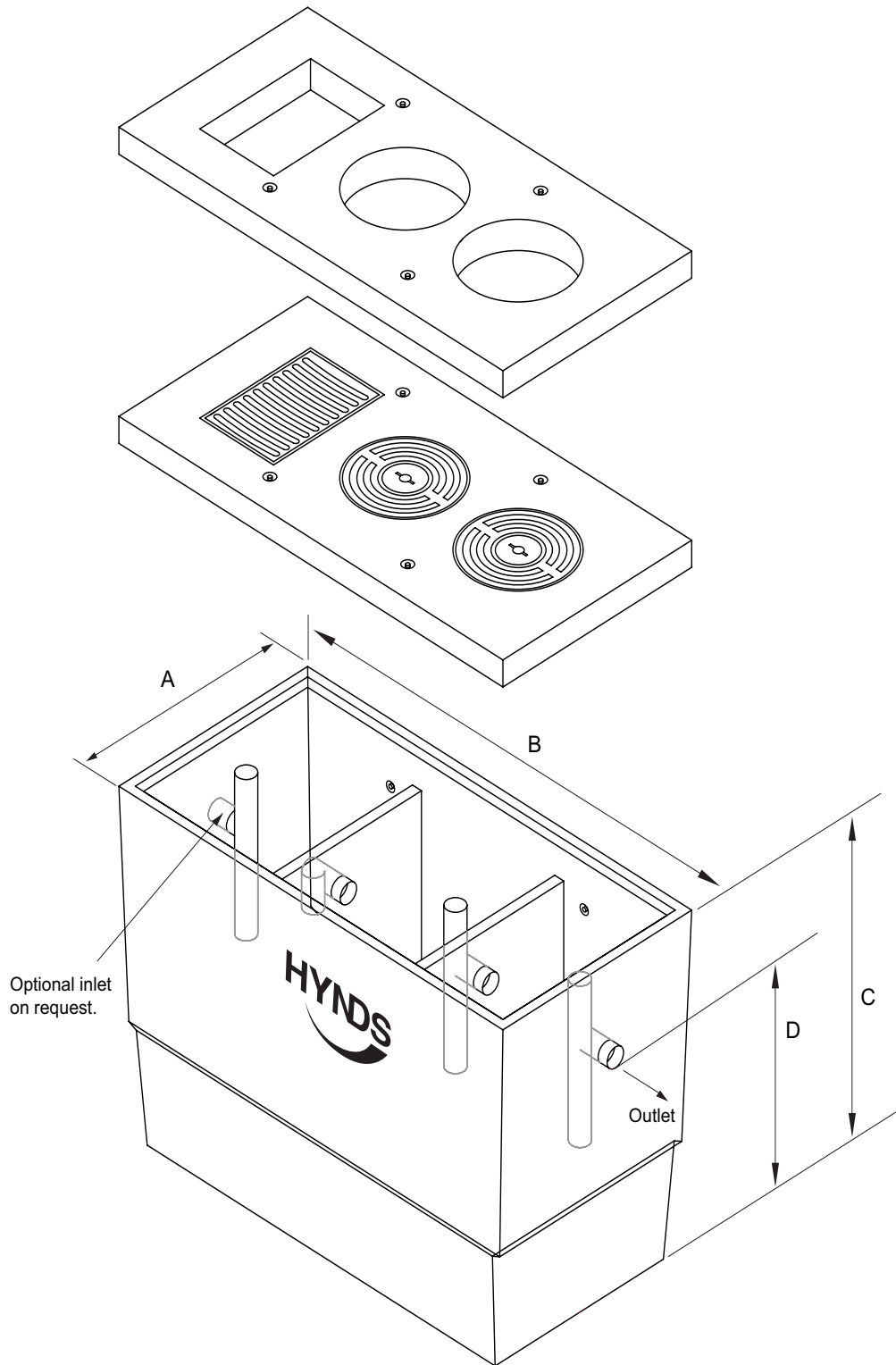
| Product Code | Tank Capacity (Litres) | Internal Fittings Ø (mm) | Number of Chambers | Dim A (mm) | Dim B (mm) | Dim C (mm) | Dim D (mm) | Lid Thickness (mm) | Mass (kg) | Shipped From |
|--------------|---------------------------|--------------------------------|--------------------|---------------|---------------|---------------|---------------|-----------------------|--------------|--------------|
| OG3000T100 | 3000 | 100 | 3 | 1150 | 2340 | 1700 | 1335 | 150 | 2452 | Hamilton |
| OG3000T150 | | 150 | 3 | 1150 | 2340 | 1700 | 1335 | 150 | 2452 | Hamilton |
| OG3300T3100 | 3300 | 100 | 3 | 1200 | 2575 | 1700 | 1330 | 150/200 | 3224 | Palmerston |
| OG3300T3150 | | 150 | 3 | 1200 | 2575 | 1700 | 1330 | 150/200 | 3224 | Palmerston |
| OG3300LT100 | 3300 | 100 | 3 | 1150 | 2350 | 1840 | 1475 | 200 | 2950 | Christchurch |
| OG3300LT150 | | 150 | 3 | 1150 | 2350 | 1840 | 1475 | 200 | 2950 | Christchurch |

Note: Suggested invert level (dimension D) is indicative only and may vary depending on inlet/outlet pipe O.D.'s
Prices may vary depending on your location.

TABLE 4 Lid Range

| Product Code | Description | Application | Mass (kg) | Shipped from |
|----------------|---|-------------|-----------|--------------|
| OGL3000.200H | 200 mm Height Heavy Duty Oil & Grit Lid with Cast Iron Covers and Grate | 3000L Tank | 1210 | Hamilton |
| OGL3300T3.200H | 200 mm Height Heavy Duty Oil & Grit Lid without Cast Iron Covers and Grate | | 1285 | Palmerston |
| OGL3300.200H | 200 mm Height Heavy Duty Oil & Grit Lid with Cast Iron Covers and Grate | 3300L Tank | 1188 | Christchurch |

FIG. 2 Light duty Hynds interceptor units are available with a range of lid thicknesses and options with cast iron access covers.



Lifting and Handling

Hynds Pipe Systems has designed and manufactured Hynds Oil and Grit Interceptor System 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:

3. 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
4. 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

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 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.



Branches Nationwide Support Office & Technical Services 0800 93 7473

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.