

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.



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/Environment/Health & Safety

ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018

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 a standard 150mm 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 200mm thick precast concrete lids are available for any traffic loading.
- 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 out wall 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.

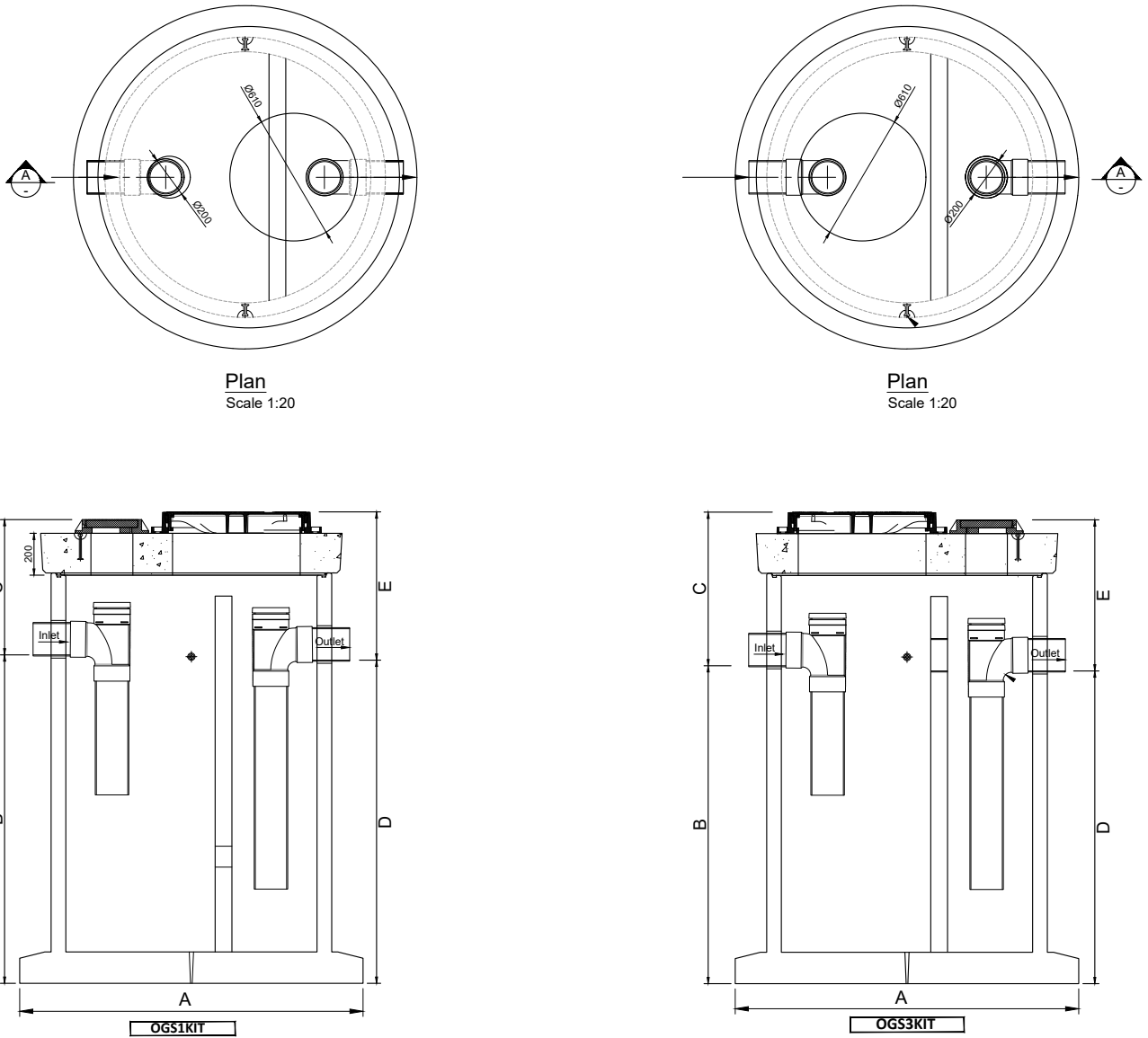


FIG. 1 General arrangement drawing

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	1640	1569	646	1544	708	200	2	3.51	Auck/Chc
OGS3KIT	150	1640	1519	734	1494	722	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	2350	1170	673	1145	698	200	3	7.472	Auck/Chc
OGS5KIT	150	2350	1120	723	1095	748	200	3	7.472	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	2350	1700	1335	260	2660	Pokeno
OG3000T150		150	3	1150	2350	1700	1335	260	2680	Pokeno
OG3300T3100	3300	100	3	1200	2575	1700	1330	200	3224	Palmerston
OG3300T3150		150	3	1200	2575	1700	1330	200	3224	Palmerston
OG3300LT100	3300	100	3	1150	2350	1840	1470	200	3028	Christchurch
OG3300LT150		150	3	1150	2350	1840	1470	200	3028	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
OGL3000.260H	250 mm Height Heavy Duty Oil & Grit Lid with Cast Iron Covers and Grate	3000L Tank	1612	Pokeno
OGL3000.200NC	200 mm Height Heavy Duty Oil & Grit Lid without Cast Iron Covers and Grate		1038	
OGL3300T3.200H	200 mm Height Heavy Duty Oil & Grit Lid without Cast Iron Covers and Grate	3300L Tank	1285	Palmerston
OGL3300.200H	200 mm Height Heavy Duty Oil & Grit Lid with Cast Iron Covers and Grate		1188	Christchurch

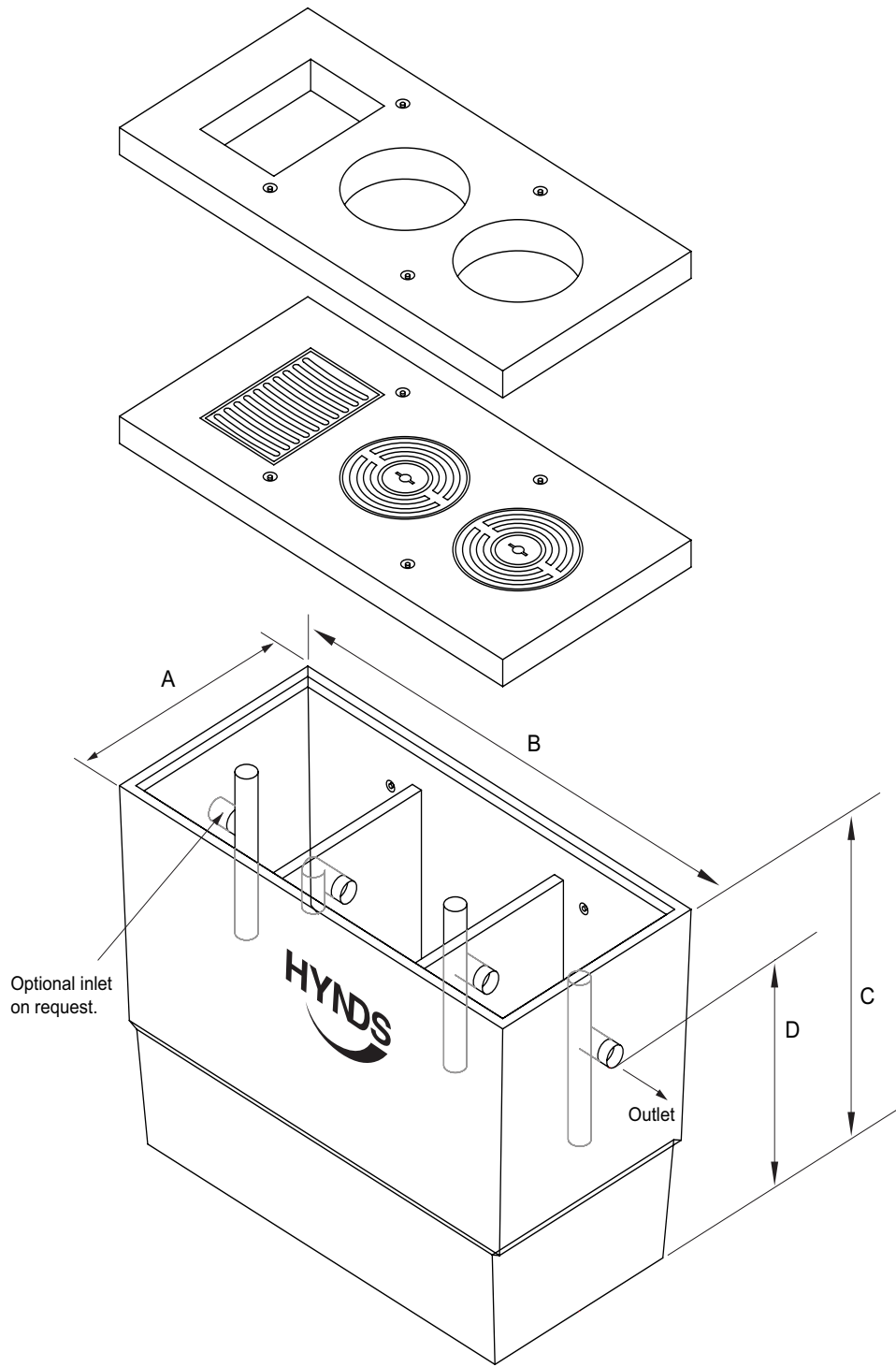


FIG. 2 Light duty Hynds interceptor units are available with a range of lid thicknesses and options with cast iron access covers.

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:

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 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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