

# HUMES

## API Oil Interceptor



### Design meets the standards set by the Oil Industry Guidelines and ARC TP10 (2003)\*

The Humes API Oil Interceptor is designed to separate hydrocarbons from stormwater runoff and has the capability to capture an accidental spill up to 2500 litres discharging at 1000 litres per minute. The butterfly shut-off valve closes at capacity allowing containment of excessive accidental spills.

#### Applications

- Service stations
- Truck stops
- Vehicle service centres
- Terminals and depots
- Blending and manufacturing plants

#### Benefits

- Cost effective
- Safe and reliable
- Reduced installation cost
- Retention of accidental spill
- Easy access for servicing

#### Features

- Efficient separation, industry compliance
- Full range to suit individual catchment areas
- Emergency shut-off
- Few moving parts
- Quality precast unit
- Designed to carry legal wheel loadings

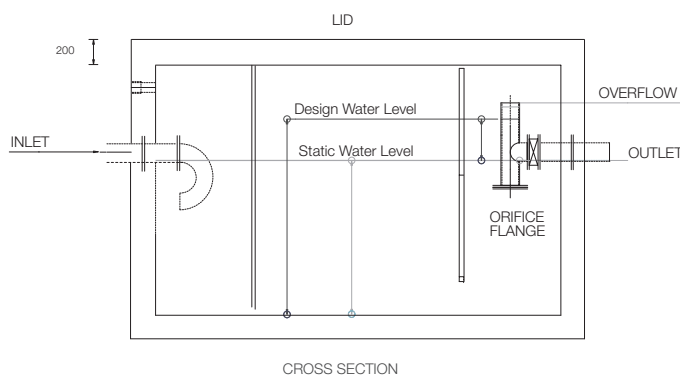
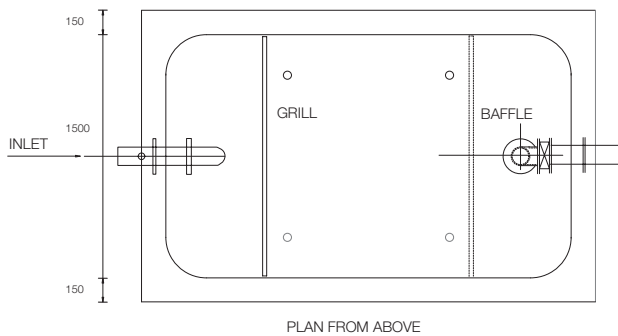
#### Testing and Design

Testing and design of the Humes API Oil Interceptor has been carried out as per requirements of ARC TP10 (2003) and the Environmental Guidelines for Water Discharge from Petroleum Industry sites in New Zealand (MFE):

- to retain at least 2500 litres of spill
- to discharge less than 15 parts/million total petroleum hydrocarbons
- to not exceed 25m/hour horizontal velocity through unit.

\*TP10 is a design guideline manual for Stormwater Management Devices published by the Auckland Regional Council

# API Oil Interceptor



## Installation

The Humes API unit must be bedded to a level and uniform surface providing a safe bearing capacity of 100kPa. If for any reason this cannot be achieved an engineer experienced in foundations should be contacted for specialist advice.

The minimum requirement for the prepared bedding is a 100mm layer of compacted granular material. The lid must be bedded uniformly on all sides to a full width layer of mortar.

Units installed below ground or on a sloped finished ground or pavement surface must be designed specifically for those conditions. Wall props are required as tabulated below.

## Maintenance and operation

The units must be maintained and operated in accordance with the appropriate industry guidelines and the environmental management plan developed for the site.

## Manufacturing standards

All materials comply with the relevant New Zealand standard. Precast manufacture is to NZS 3109:1997 with surface finishes to NZS 3114:1987, F4 and U2 for formed and trowelled respectively. Concrete has a design strength of 40 MPa.

## API Oil Interceptor

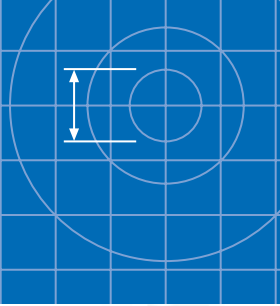
### Oil Industry Guidelines

Model Reference	API3000	API3500
<b>Item Code (API Body fitted out)</b>	04070	04073
<b>Item Code (API lid c/w access covers)</b>	04098	04078
<b>Internal Length</b>	3000	3500
<b>Internal Width</b>	1500	1500
<b>External Height</b>	1850	1850
<b>External Length</b>	3300	3800
<b>External Width</b>	1800	1800
<b>Unit Weight (tonnes)</b>	10.6	11.9
<b>R.H.S. Struts</b>	1	1
<b>Intercepted Length to Baffle</b>	2400	2900
<b>Capacity for AGO (SG 0.9) m<sup>3</sup></b>	3.00	3.63
<b>Design Flow m<sup>3</sup>/hr</b>	2.45	2.95
<b>Orifice Size D mm</b>	25	28
<b>Catchment Area m<sup>2</sup></b>		
9mm/hr	272	328
12mm/hr	204	246
15mm/hr	163	197
<b>ARC Chapter 10, TP10</b>		
Design Flow m <sup>3</sup> /hr	1.75	2.10
Orifice Size D mm	21	23
Area m <sup>2</sup> 15mm/hr	117	140

Buyers and users of the products described in this brochure must make their own assessment of the suitability and appropriateness of the products for their particular use and the conditions in which they will be used. All queries regarding product suitability, purpose or installation should be directed to the nearest Humes Sales Centre for service and assistance. © Fletcher Concrete and Infrastructure Limited 2014. Updated on July 2019.



# Oil and Grit Interceptor protecting our streams



## For separation of oil and grit from stormwater and wash down areas

**Humes concrete Oil and Grit Interceptors are applicable for low volume stormwater runoff from small areas (<100m<sup>2</sup>) where hydrocarbon products are present or where small spills routinely fall on paved surfaces exposed to rain or wash down.**

The primary objective of Oil and Grit Interceptors is to treat most of the flow from the catchment and to remove free floating oil. Oil and Grit Interceptors are also designed to collect coarse sediment. However, to treat total suspended solids effectively in stormwater runoff, other devices such as Humeceptor or Humes Sand Filters should be used.

Oil and Grit Interceptors are not usually applicable for general urban runoff, because by the time oil reaches the device it is emulsified or coats sediment in the runoff and is difficult to separate.

Treatment should be as close to the source of the hydrocarbon products as possible to retain the oil in a floatable, non-emulsified form.

Oil and Grit Interceptors should not be used for large spill containments. API Interceptor or Humeceptor are suitable solutions for capturing an accidental spill of 2500 litres and above.

### Features

- Multi-chambered separation for oil and sediment
- Design load 0.85HN
- Swift lift anchors cast into product
- Product can be customised to suit application

### Optional Features

- T-junction fittings
- Non-rock cast iron lid and frame
- Cast iron frame and grate
- No gap between bottom of baffle and base of unit

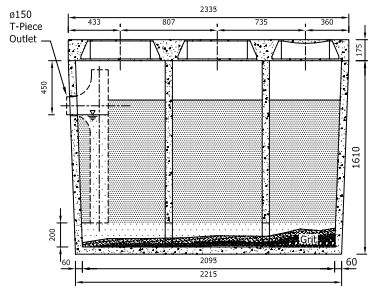
### Benefits

- Customised product to suit specific applications
- Efficient separation of contaminants
- Use in traffic areas
- Easy handling

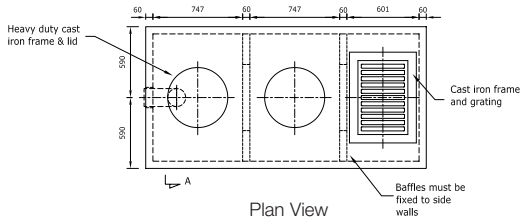
### Applications

- Vehicle wash down areas
- Small carparks
- Terminals and depots

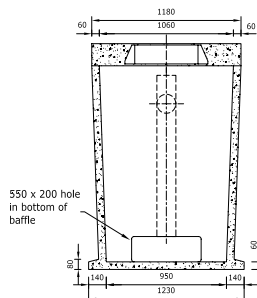




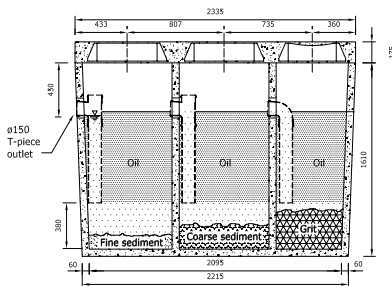
Sectional Elevation  
**Primary Oil Interceptor (2000 litre)**



Plan View



Cross Sectional View A-A



Optional Internal Design  
**Primary Grit Interceptor (1500 litre)**

## Installation

Humes Oil and Grit Interceptors are supplied complete, ready to be placed in the prepared excavation and connected to the drainage system.

## Maintenance and operation

As each application and its site runoff contamination is different, frequency of cleaning can only be determined once normal use has taken place. As a guideline, the Ministry for the Environment suggest that "oil and grit interceptors should be inspected monthly (or as appropriate, based on experience) and cleaned as required." Disposal of pollutants should be in accordance with Local Authority regulations.

## Manufacturing standards

Precast manufacture is to NZS 3109:1997 with surface finishes to NZS 3114:1987, F4 and U2 for formed and trowelled respectively. For further details please contact your local Humes Sales Representative.



### Standard model sizes and dimensions

Item number	Description	Capacity (litres)	Oil Storage (litres)	Weight of unit	Nominal length (mm)	Nominal width (mm)	Nominal height (mm)
Oil & Grit Body							
4759	1500 L Body	2495	1500	3275	2335	1180	1610
4761	2000 L Body	2495	2000	3275	2335	1180	1610
Lid, Frames & Grates							
4710	Lid C/W Cast Iron		NA	1130	2335	1180	175
4668	Lid C/W 3 x holes		NA	940	2335	1180	175

### Notes

1. Other design options available on request.
2. Capacity is defined as the volume of fluid below outlet pipe invert.

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