Owls Hall®
ENVIRONMENTAL

This information is brought to you by Owls Hall Environmental working in partnership with Klargester products.

Excellent Treatment

0845 375 1801
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NOMINAL SIZE CLASS 1 & CLASS 2 FULL RETENTION SEPARATORS

Klargester Treatment Systems

INTRODUCTION

Klargester are very pleased to provide a revised range of separators under the new code of NS. Nominal size. The NS code denotes the flow at which the separator operates and is only able to be applied to products which have been independently tested and certified. The British Standards Institute (BSI) have tested the required range of Klargester separators and have certified their performances in relation to their flow and process performance. It is only after these tests have been completed, that it is permissible to use the NS prefix. Klargester are the first UK manufacturer to have the required product range certified in the UK.

Klargester NS Class 1 and Class 2 Full Retention Separators are certified as complying to the Environment Agency Pollution Prevention Guidelines PPG3, issued March 2000. They are designed in accordance with EN 858 (Part1) The use of an oil/water separator is required wherever there is the risk of hydrocarbon pollutants causing contamination at the point of discharge i.e. an open ditch, river, stream or groundwater

ONLY certified NS separators should be installed, in accordance with the Environment Agency guidelines.

Klargester NS separators treat the whole of the specified flow. The calculated drainage areas served by each separator are indicated according to the PPG 3 formula, NS = 0.018(m²).

Each separator design includes the necessary requirements for :-

- Oil storage volume
- Silt storage capacity
- Coalescer. Class 1 units only.
- Automatic Closure Device - to retain excess stored oil and avoid contaminating the discharge.

Klargester Separators are frequently specified & accepted by Local Authorities, major contractors and environmental regulatory bodies.

SEPARATOR FEATURES

- Independently tested & performance sampled, certified by the BSI Light and easy to install.
- Comprehensive range.
- Class 1, & Class 2 designs.
- Silt storage volume inclusive.
- Rapid availability.
- Fitted inlet/outlet connectors.
- Vent points within necks.
- Extension access shafts for deep inverts.
- Maintenance from ground level.
- Optional separate tube to contain oil probe to operate excess oil Alarm System.

APPLICATION

Full Retention Separators are used in high risk spillage areas such as Fuel distribution depots, Vehicle workshops & Scrap yards.

Low risk areas such as open car parks may be suitable for Bypass Separators.- see separate data sheet. Reference should be made to EA/SEPA Guidelines PPG 3 when selecting a separator.

PRODUCT SELECTION

To select the correct Class 1 or Class 2 Full Retention Separator for your application, turn to the table overleaf.

Alternatively consult our Technical Sales Department at our head office in Aston Clinton. ☎ 01296 633014.

Klargester have experienced technical representatives operating throughout the UK who can offer on-site advice. Alternative Design Separators are available for use with vehicle wash facilities. Garage forecourts require the Klargester 'Enviroceptor' Forecourt Separator.

OPERATION

Contaminated water enters the unit, the internal design and configuration ensures that the liquid is retained for a sufficient period to ensure quiescent conditions within the Separator. Lighter than water pollutants, such as oils and petrol, rise to the surface of the water and are retained within the separator. Separated liquid discharges. An automatic closure device seals off the outlet when the retained oil reaches the pre-determined level. Retained oil must be emptied from the unit once the level of oil is reached and the closure device operated.

Class 1 separators include a coalescer unit to produce an improved discharge effluent quality. In BSI witnessed performance tests, our units produced effluent with less than the maximum allowable level of 5mg/l oil. Class 2 units do not have a coalescer. In the witnessed performance tests, our units produced effluent with less than the maximum allowable level of 100mg/l oil.

OIL LEVEL ALARM

Alarm systems are available to meet PPG 3 guidelines. In quiescent conditions, a visual and audible warning is provided by the control unit to indicate when removal of the retained hydrocarbons is required. The alarm is triggered by a probe which activates when the oil stored in the separator reaches 90% of the allowable oil storage volume. Alarm Control Units are available as mains battery & solar powered. We recommend that the oil probe is fitted within a dedicated tube located either in the body of the unit or within the access neck. The dedicated tube aids operation of the probe, provides easy access for maintenance and reduces the chance of damage during emptying and coalescer removal. Please request when ordering the separator.

CONSTRUCTION & QUALITY

Klargester oil/water separators are manufactured from durable, rot and corrosion proof glass reinforced plastic, combining light weight with outstanding strength.

The required range of separators has been certified as meeting the Environment Agency's PPG 3 requirements. All Klargester products are manufactured and accredited to BS EN ISO 9002 Quality Management System.

INSTALLATION

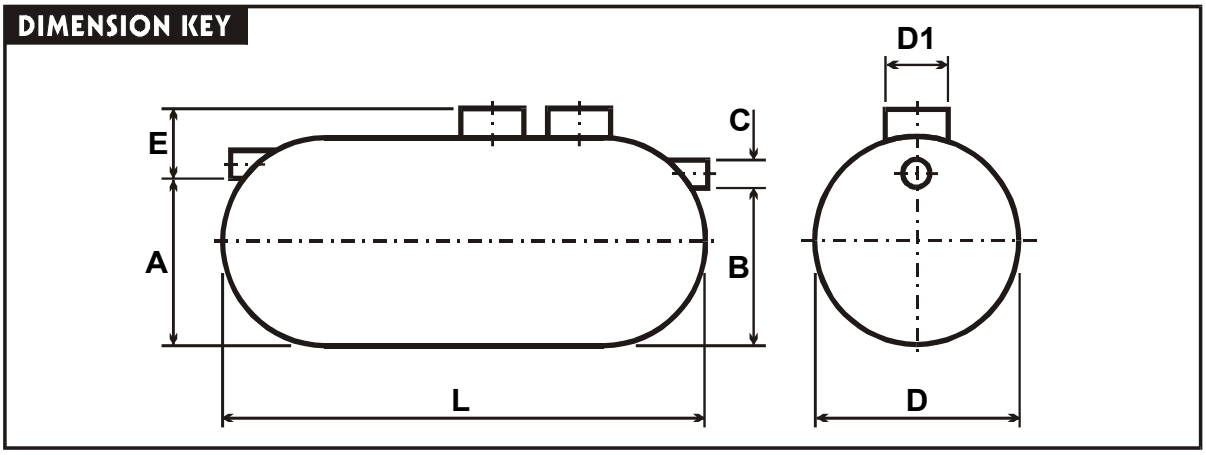
The unit should be installed on a suitable concrete base slab and surrounded with a concrete backfill. If the separator is to be installed within a trafficked area, a suitable cover slab must be designed to ensure that superimposed loads are not transmitted to the top or side walls of the unit. Separators should be vented in accordance with BS8301:1985: Building Drainage or Health and Safety Guidance Note HS (G)41 for filling stations subject to Local Authority requirements. Detailed installation guidelines are supplied with each unit.

MAINTENANCE

Hydrocarbon pollutants and silt, which build up within the separator, must be periodically removed to ensure that maximum effectiveness of the unit is maintained. The coalescer assembly should be inspected & cleaned at the same time. When required, the coalescer media can be replaced. In the event of a major pollutant spillage, or if the oil level alarm activates, stored pollutants should be removed from the unit immediately. Separator waste is a "special waste" under the terms of The Waste Management Code of Practice.

CLASS 1 & CLASS 2 FULL RETENTION SEPARATORS

Unit Nominal Size.	Flow (l/s)	Drainage Area (m^2) PPG-3 (0.018)	Silt Storage Capacity Litres	Oil Storage Capacity Litres	Length (L)	Unit Dia. (D)	Manhole Cover Dimensions (D1)	Base to Inlet Invert (A)	Base to Outlet Invert (B)	Min. Inlet Invert (E)	Standard Pipework Dia. (C)
NS 3	3	170	300	30	1760	1225	600x900	1050	1000	500	200
NS 6	6	335	600	60	1760	1225	600x900	1050	1000	500	200
NS 10	10	555	1000	100	2610	1225	600x900	1050	1000	500	200
NS 15	15	835	1500	150	3910	1225	600x900	1050	1000	500	200
NS 20	20	1115	2000	200	3200	2010	600	1850	1800	1000	200
NS 30	30	1670	3000	300	3915	2010	600	1850	1800	1000	315
NS 40	40	2225	4000	400	4360	2010	600	1850	1800	1000	315
NS 50	50	2780	5000	500	5425	2010	600	1810	1760	1000	315
NS 65	65	3610	6500	650	6850	2010	600	1810	1760	1000	315
NS 80	80	4445	8000	800	5700	2820	600	2500	2450	1000	315
NS 100	100	5560	10000	1000	6200	2820	600	2500	2450	1000	315
NS 125	125	6945	12500	1250	7365	2820	600	2500	2450	1000	450
NS 150	150	8335	15000	1500	8675	2820	600	2550	2450	1000	450
NS 175	175	9725	17500	1750	9975	2820	600	2550	2450	1000	450
NS 200	200	11110	20000	2000	11280	2820	600	2550	2450	1000	450



All dimensions are in millimetres. Units.>NS 20 have multiple necks fitted. Units >NS 80 have multiple coalescers

To specify a Klargester Class 1 or 2 Full Retention Separator, the following information is needed:

- **The calculated flow rate NS or the drainage areas served.**

Our designs are based on the assumption that any interconnecting pipework fitted elsewhere on site does not impede flow into or out of the separator. Run-off from low risk areas, such as roofs, should not be connected to a separator. If this cannot be avoided, the separator must be re-sized to take into account the additional flow.

- **The required discharge standard.**

I.e. a unit to meet Class 1 (<5 mg/l) or Class 2(<100 mg/l) Oil -as demonstrated during the test procedure)

- **The drain inlet invert depth.**

The difference between the drain invert depth and the minimum invert (E), rounded up to the nearest half metre, is the length of extension shaft(s) needed.

Extension shafts kits, for site fitting are available in 0.5 metre increments. The maximum recommended invert depth for these separators is 2.0/2.5m total. The kit includes coalescer extension handles. Units may be installed at greater depths with an appropriate civil engineering design and you must make suitable provision for coalescer removal and maintenance.

- **With or without an Oil Probe tube.**
- **Oil Alarm System.** See separate Data sheet for available options.
- **Pipework type & Sizes**

The table indicates the standard pipework fitted. Up to and including 315mm ID, the pipe is PVCu spigot. >450mm are GRP connectors. The standard size stated are generally those required by EN 858. By request, alternate sizes can be fitted however, please note we do not alter internal pipework dimensions and alternate pipework selections will generally be fitted external to the standard.

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