Full Retention Separators

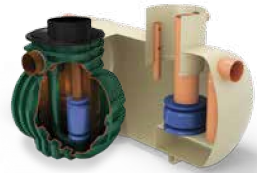NSF RANGE

Kingspan NSF range achieved on average <1mg/l under EN 858-1 testing conditions

Performance

Kingspan were the first UK manufacturer to have the required range (3-30 l sec) certified to BS EN 858-1 in the UK. The NSF number denotes the flow at which the separator operates. The British Standards Institute (BSI) have witnessed the performance tests of the required range of separators and have certified their performance, in relation to their flow and process performance to ensure that they meet the effluent quality requirements of BS EN 858-1. Larger separator designs have been determined using the formulas extrapolated from the test range.

Each full retention separator design includes the necessary volume requirements for:

- Oil separation capacity
- Oil storage volume
- Silt storage capacity
- Coalescer (Class I units only)
- Automatic closure device.

Kingspan full retention separators treat the whole of the specified flow.

Features

- Light and easy to install
- 3-30 l/sec range independently tested and performance sampled, certified by the BSI
- Inclusive of silt storage volume
- Fitted inlet/outlet connectors
- Oil alarm system available

- Vent points within necks
- Extension access shafts for deep inverts
- Maintenance from ground level
- GRP or rotomoulded construction (subject to model)

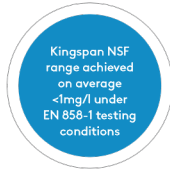To specify a nominal size full retention separator, the following information is needed:

- The calculated flow rate for the drainage area served. Our designs are based on the assumptions that any interconnecting pipework fitted elsewhere on site does not impede flow into or out of the separator and that the influent is not pumped
- The required discharge standard
- The drain invert inlet depth
- Pipework type, size and orientation.

Applications

Full retention separators are used in high risk spillage areas such as:

Fuel Distribution Depots

Vehicle Workshops

Scrap Yards

Airports

Ports

Railways

Technical Specifications

Unit Nominal Size	Flow (l/s)	Drainage Area (m²) PPG3 (0.018)	Storage Capacity (Ltrs)		Maximum Total Capacity (litres)	Length (mm)	Unit Dia. (mm)	Base to Inlet Invert (mm)	Base to Outlet Invert (mm)	Min. Inlet Invert (mm)	Standard Pipework Dia. (mm)	No. of Coalescer Assemblies
			Silt	Oil								
NSFA210	210	11,667	21,000	2100	59,000	11,991	2820	2550	2450	1000	600	5
NSFA225	225	12,500	22,500	2250	63,000	12,760	2820	2550	2450	1000	600	5
NSFA240	240	13,333	24,000	2400	67,000	13,527	2820	2550	2450	1000	600	5
NSFA255	255	14,167	25,500	2550	71,000	14,295	2820	2550	2450	1000	600	6
NSFA270	270	15,000	27,000	2700	75,000	15,065	2820	2550	2450	1000	600	6
NSFA285	285	15,833	28,500	2850	79,000	15,833	2820	2550	2450	1000	600	6

Model Reference	Flow (l/s)	Drainage Area (m2) PPG-3 (0.018)	Storage Capacity (Ltrs)		Length (mm)	Diameter (mm)	Manhole Cover Dimensions (mm)	Base Inlet Invert (mm)	Base to Outlet Invert (mm)	Min Inlet Invert (mm)	Standard Pipework Diameter (mm)
			Silt	Oil							
Polyethylene Chamber Construction											
NSFP003	3	170	300	30	1700	1350	600	1410	1335	550	160
NSFP006	6	335	600	60	1700	1350	600	1410	1335	550	160
GRP Chamber Construction											
NSFA010	10	555	1000	100	2610	1225	600	1050	1000	500	200
NSFA015	15	835	1500	150	3910	1225	600	1050	1000	1000	200
NSFA020	20	1115	2000	200	3200	2010	600	1810	1760	1000	315
NSFA030	30	1670	3000	300	3915	2010	600	1810	1760	1000	315
NSFA040	40	2225	4000	400	4640	2010	600	1810	1760	1000	315
NSFA050	50	2780	5000	500	5425	2010	600	1810	1760	1000	315
NSFA065	65	3160	6500	650	6850	2010	600	1810	1760	1000	315
NSFA080	80	4445	8000	800	5744	2820	600	2500	2450	1000	315
NSFA100	100	5560	10000	1000	6200	2820	600	2500	2450	1000	400
NSFA125	125	6945	12500	1250	7365	2820	600	2500	2450	1000	450
NSFA150	150	8335	15000	1500	8675	2820	600	2500	2450	1000	525
NSFA175	175	9725	17500	1750	9975	2820	600	2500	2450	1000	525
NSFA200	200	11110	20000	2000	11,280	2820	600	2500	2450	1000	600

* Systems to cater for larger flow rates are available on request. Email water-ME@kingspan.com for further information
* Some units have more than one access shaft – diameter of largest shown.

Vent Pipe

Oil is separated and retained

Oil Alarm probe

Incoming Flow via Inlet Pipe

Outlet

Separation Zone

Automatic Closure Device

Silt settles out and is retained

Coalescing Filter Assembly

Sump