

Bypass Separators

NSB RANGE



Performance

Kingspan was one of the first UK manufacturers to have separators tested to BS EN 858-1. In 2006, we introduced the NSB range of bypass separators. The NSB number denotes the maximum flow at which the separator treats liquids. The British Standards Institute (BSI) tested the required range of Kingspan bypass separators, and certified their performance in relation to their flow and process performance, assessing the effluent qualities to the requirements of BS EN 858-1. Kingspan bypass separator designs follow the parameters determined during the testing of the required range of bypass separators.

Each bypass separator design includes the necessary volume requirements for:

- Oil separation capacity
- Oil storage volume
- Silt storage capacity
- Coalescer (Class 1 units only).

The unit is designed to treat the first 10% of peak flow ('first flush principle'). The calculated drainage areas served by each separator are indicated according to the formula $NSB = 0.0018A$ (m²). Flows generated by higher rainfall rates will pass through part of the separator, bypassing the separation chamber.

Class I separators are designed to achieve a concentration of 5mg/litre of oil under standard test conditions.

Features

Light and easy to install.

- Inclusive of silt storage volume
- Fitted inlet/outlet connectors
- Vent points within necks
- Oil alarm system available (required by BS EN 858-1)
- Extension access shafts for deep inverts
- Maintenance from ground level
- GRP or rotomoulded construction (subject to model).

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

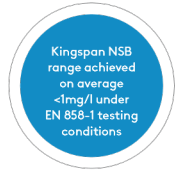
- The calculated flow rate for the drainage area served. Our designs are based on the assumptions that any interconnecting pipework fitted elsewhere on site does not impede flow into or out of the separator and that the flow is not pumped
- The drain invert inlet depth
- Pipework type, size and orientation.

Technical Specifications

Model Reference	Flow (l/s)	Peak Flow Rate (l/s)	Drainage Area (M ²) Based on UK rainwater flow	Storage Capacity (Ltrs)		Length (mm)	Diameter (mm)	Access Shaft Diameter (mm)	Base Inlet Invert (mm)	Base to Outlet Invert (mm)	Standard Fall Across (mm)	Min Inlet Invert (mm)	Standard Pipework Diameter (mm)**
				Silt	Oil								
Polyethylene Chamber Construction													
NSBP003	3	30	1670	300	45	1700	1350	600	1420	1320	100	500	160
NSBP004	4.5	45	2500	450	60	1700	1350	600	1420	1320	100	500	160
NSBP006	6	60	3335	600	90	1700	1350	600	1420	1320	100	500	160
GRP Chamber Construction													
NSBE010	10	100	5560	1000	150	2069	1220	750	1450	1350	100	700	315
NSBE015	15	150	8335	1500	225	2947	1220	750	1450	1350	100	700	315
NSBE020	20	200	11111	2000	300	3893	1220	750	1450	1350	100	700	375
NSBE025	25	250	13890	2500	375	3575	1420	750	1680	1580	100	700	375
NSBE030	30	300	16670	3000	450	4265	1420	750	1680	1580	100	700	450
NSBE040	40	400	22222	4000	600	3250	1920	600	2185	2035	150	1000	500
NSBE050	50	500	27778	5000	750	3960	1920	600	2185	2035	150	1000	600
NSBE075	75	750	41667	7500	1125	5841	1920	600	2235	2035	200	950	675
NSBE100	100	1000	55556	10000	1500	7661	1920	600	2235	2035	200	950	750
NSBE125	125	1250	69444	12500	1875	9548	1920	600	2235	2035	200	950	750

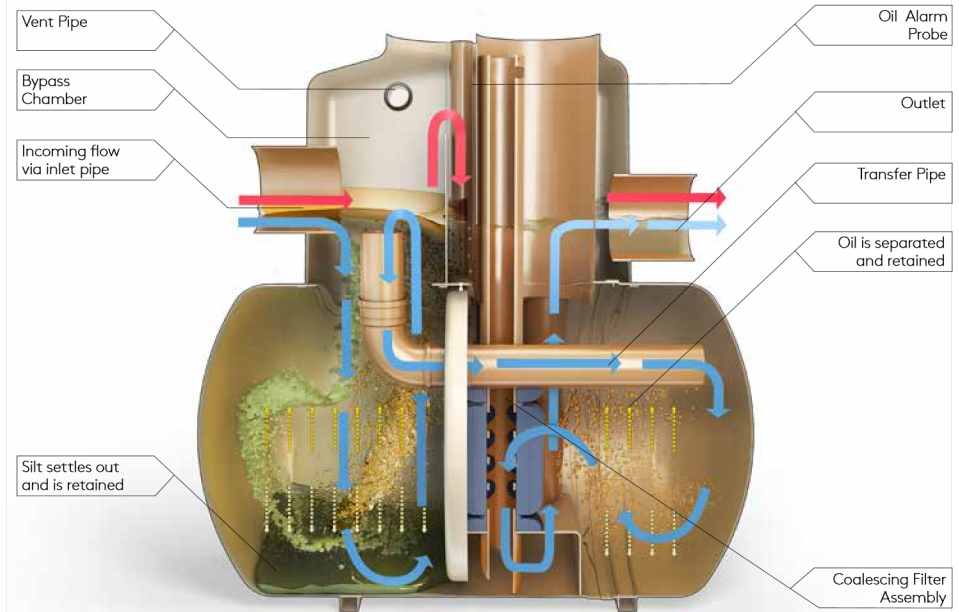
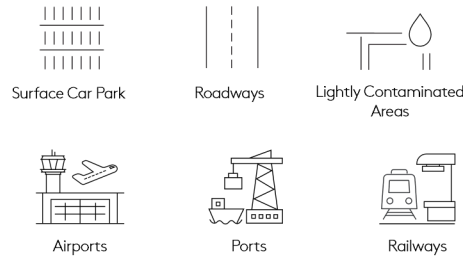
* Systems to cater for larger flow rates are available on request. Email water-ME@kingspan.com for further information.

** Some units have more than one access shaft - diameter of largest shown | ** Larger pipework available on request.



Applications

Kingspan's range of bypass separators are typically used for the following applications:



● Bypass flow route ● Normal flow route