

SPEL Puraceptor

Oil water separation & high risk hydrocarbon capture



spelstormwater
joy in water

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APPLICATIONS

- Power stations, substations and switchyards
- Mining and heavy vehicle
- Windfarms
- Waste transfer depots
- Service stations and re-fuelling areas
- Asphalt plants

Guaranteed hydrocarbon spill capture in all flow and spill conditions.

SPEL Purceptor is a full retention separator that treats all flows. It is to be sized to contain more than the anticipated maximum oil spillage — enabling it to be fully operational in treating stormwater runoff at all times.

It has two chambers, a coalescer and an automatic closure device specifically designed to contain major oil spills, thereby making it suitable for high-risk applications. It achieves a water discharge quality of less than 5ppm of oils and hydrocarbons, complying with European Standard BS EN 858.1. 2006.

Treatable flow rates range from 2LPS to 200LPS. Pipe sizes range from 100mm to 450mm (larger sizes on request).

Tested Treatment Efficiencies*

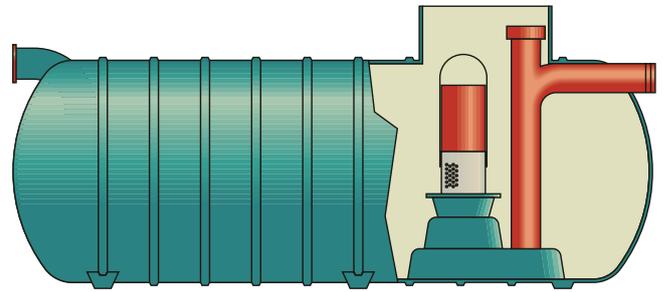
Pollutant	Efficiency
Gross Pollutants (GP)	100%
Total Suspended Solids (TSS)	87%
Total Phosphorus (TP)	11%
Total Nitrogen (TN)	23%
Petroleum Hydrocarbon	99.99%
Spill capture (Site specific volume)	100%

*Contact Spel to confirm approved performance for the project LGA





FEATURES



Stormwater Treatment

SPEL PURACEPTOR Class 1 stormwater treatment separators cater for potential hazards to the environment including sites where there is a risk of oil and fuel spills.

Oils and all petroleum hydrocarbons are treated to the highest discharge quality exceeding EPA standards ensuring it safe for stormwater discharge.

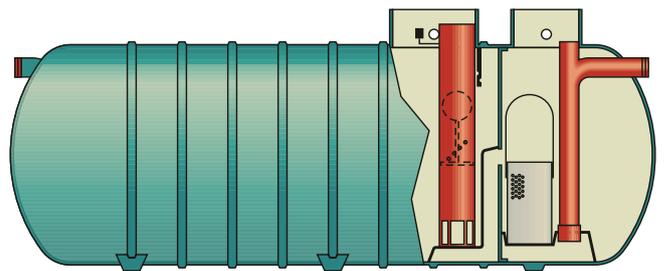
Major Oil spills from a petrol tanker or a transformer rupture are captured and contained preventing any stormwater discharge.

- Independently tested (laboratory) and certified to discharge < 1.86ppm petroleum hydrocarbons (TPH), from 5,000ppm ingress
- Independently field tested to discharge 'no detection' from >33,000.0ppm

The results obtained at HR Wallingford, U.K. are certified to European Standard EN BS858.1 (2006) and are in line with the designed performance criteria for high performance and long service life between maintenance periods, achieving results averaging between 0.1 - 1.86mg/L

Single Chamber

- Medium risk oil/fuel storage and handling areas.
- Service stations with full canopy protection.
- Commercial vehicle/plant maintenance yards and contaminated industrial areas.



Two Chamber

- High risk oil/fuel storage and handling areas where maximum protection is required.
- Suitable for service stations exposed to rainfall runoff.
- Continues to treat stormwater even after the maximum designed spill has occurred.
- Heavily contaminated industrial areas, power/sub stations, fire training grounds, railway maintenance and fuelling depots.
- The second chamber provides protection to the coalescer foam inserts from silt and fuel/oil contamination, resulting in less frequent maintenance and easier cleaning of the coalescer foam inserts.
- A large silt capacity is incorporated in the first chamber greatly reduces the frequency of tank cleaning on highly polluted sites.



HOW IT WORKS

SPEL Puraceptor is a FULL RETENTION separator that treats all flows and is sized to contain more than the anticipated maximum oil spillage enabling it to be fully operational at all times.

It has two chambers, a coalescer and is fitted with an automatic closure device specifically designed to contain major oil spills thereby making it suitable for high risk applications.

It achieves a water discharge quality of less than 5ppm of oils and hydrocarbons complying to European Standard BS EN 858.1. 2006. Treatable flow rates range from 2LPS to 200LPS. Pipe sizes range from 100mm to 450mm (larger sizes and flows on request).

1. AUTOMATIC CLOSURE DEVICE

The AUTOMATIC CLOSURE DEVICE (A.C.D.) is a precisely engineered device comprising a water-buoyant ball that is sensitive to any change in the water density as a consequence of light liquids build up, thereby automatically activating a process of depressing the A.C.D. to SHUT OFF the separator, preventing pollutants from discharging to drains and waterways.

2. FULL RETENTION

All liquid is treated. There is no by-pass operation.

3. COALESCER EQUIPPED

Provides a coalescing process for the separation of smaller globular of light liquid pollutants to reduce the light liquid content in the outlet to 5mg/litre or less.

4. INLET DIP PIPE - FLAME TRAP

For minimum turbulence and to prevent fire and inflammable vapours passing through to the drainage system.

5. TWO CHAMBER

A non-turbulent flow through two horizontal treatment chambers, utilising the underflow principle to retain light liquids in all flow conditions.

A. CONTAINMENT CHAMBER: Where Total Suspended Solids (TSS) silt, sediments, sludge and gross pollutants are trapped and settle on the chamber floor and where light liquids are contained.

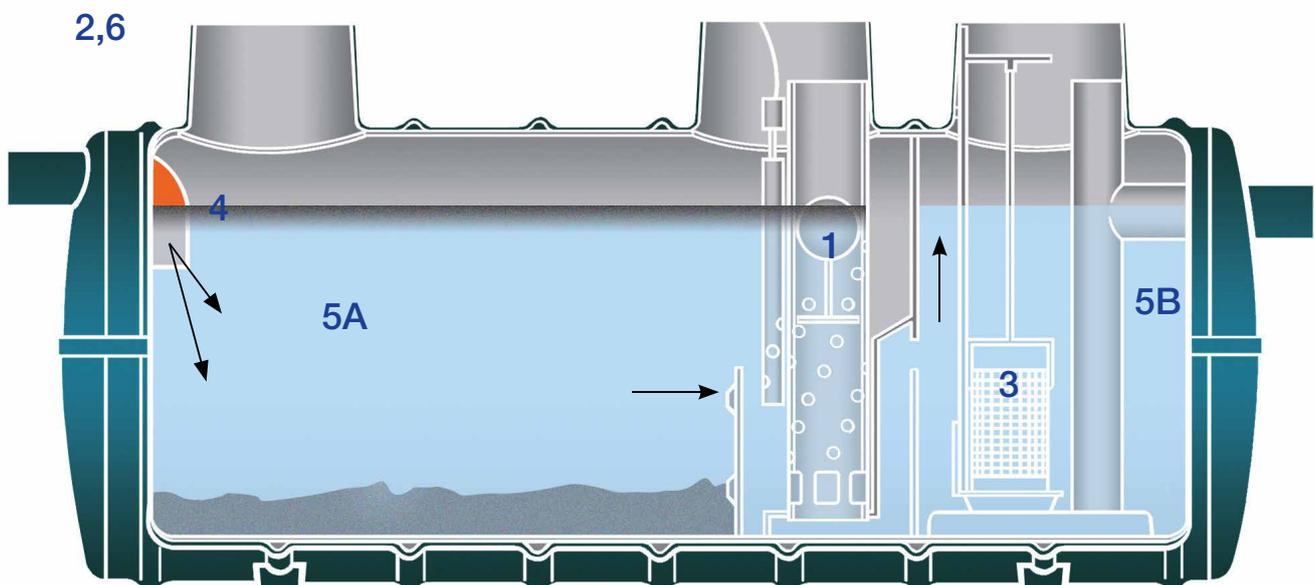
B. COALESCER CHAMBER: Where light liquids separation is enhanced reducing it to 5mg/litre or less prior to discharge.

6. GRAVITY OPERATED

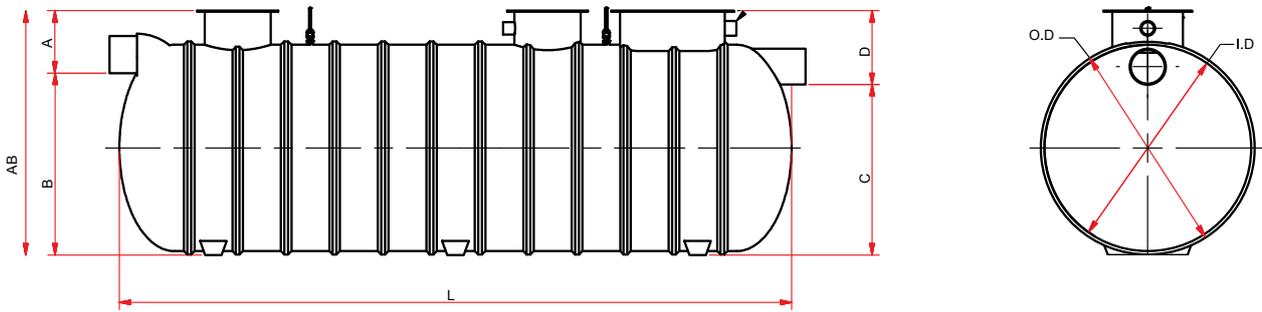
Will function in the event of power failure and fits into existing pipe drainage systems or new sites.

7. MAINTENANCE

Easy and safe with no entering of the tank required.



SPECIFICATIONS



Models	Treatment Flow Rate	Weight (KG)	Dimensions (mm)								Maximum Inlet & Outlet Pipe Size (mm) Configuration*	Manholes				Max. Spill at Shut Off	Max. Working Capacity
			A	B	A&B	C	D	L	OD	ID		Qty	Size	Qty	Size		
100 Series Tanks - 900 mm Internal Diameter																	
P.002.C1.2C	2 LPS	120	400	820	1220	800	420	1700	930	900	100	2	450 ID	-	-	250	800
200 Series Tanks - 1200 mm Internal Diameter																	
P.004.C1.2C	4 LPS	330	460	1100	1560	1080	480	2600	1350	1200	150	2	600 ID	-	-	1,000	2,050
P.006.C1.2C	6 LPS	400	425	1135	1560	1095	465	3035	1350	1200	150	2	600 ID	-	-	1,300	2,550
P.008.C1.2C	8 LPS	450	460	1100	1560	1060	500	3800	1350	1200	150	2	600 ID	-	-	1,900	3,200
P.010.C1.2C	10 LPS	500	450	1110	1560	1060	500	4600	1350	1200	150	2	600 ID	-	-	2,500	3,900
P.013.C1.2C	13 LPS	550	446	1114	1560	1040	520	5800	1350	1200	150	3	600 ID	-	-	3,000	4,800
P.015.L.C1.2C	15 LPS	600	425	1135	1560	1065	495	6500	1350	1200	150	3	600 ID	-	-	3,400	5,400
300 Series Tanks - 1850 mm Internal Diameter																	
P.015.S.C1.2C	15 LPS	650	620	1630	2250	1600	650	3000	1950	1850	300	1	600 ID	1	900 x 600	3,500	5,500
P.020.C1.2C	20 LPS	850	625	1625	2250	1585	665	4000	1950	1850	300	1	600 ID	1	900 x 600	3,900	7,300
P.030.C1.2C	30 LPS	1100	660	1590	2250	1575	675	4860	1950	1850	300	1	600 ID	1	900 x 600	5,500	10,800
P.040.8.C1.2C	40 LPS	1180	550	1600	2150	1500	650	5900	1950	1800	300	1	600 ID	1	900 x 600	8,000	13,400
P.040.C1.2C	40 LPS	1240	650	1600	2250	1550	700	6540	1950	1850	300	2	600 ID	1	900 x 600	9,000	14,400
P.050.L.C1.2C	50 LPS	1400	650	1600	2250	1520	730	8500	1950	1850	300	2	600 ID	1	900 x 600	10,000	18,000
P.060.L.C1.2C	60 LPS	1550	650	1600	2250	1500	750	10,000	1950	1850	300	2	600 ID	1	900 x 600	11,200	21,600
P.070.L.C1.2C	70 LPS	1700	650	1600	2250	1500	750	11,600	1950	1850	300	2	600 ID	1	900 x 600	12,400	25,200
400 Series Tanks - 2480 mm Internal Diameter																	
P.050.S.C1.2C	50 LPS	1400	720	2230	2950	2150	800	4680	2600	2480	375	1	600 ID	1	900 x 600	9,000	18,000
P.060.S.C1.2C	60 LPS	1560	550	2400	2950	2220	730	5500	2600	2480	375	1	600 ID	1	900 x 600	10,700	21,600
P.070.S.C1.2C	70 LPS	1710	750	2200	2950	2150	800	6550	2600	2480	375	3	600 ID	1	900 x 600	12,400	25,200
P.080.C1.2C	080 LPS	2000	600	2350	2950	2250	700	7500	2600	2480	375	3	600 ID	1	900 x 600	14,900	29,600
P.090.C1.2C	090 LPS	2300	715	2235	2950	2150	800	8400	2600	2480	375	3	600 ID	1	1200 x 600	16,200	32,400
P.100.C1.2C	100 LPS	2550	710	2240	2950	2150	800	9000	2600	2480	375	3	600 ID	1	1200 x 600	17,700	35,700
P.110.C1.2C	110 LPS	2650	700	2250	2950	2150	800	9600	2600	2480	375	3	600 ID	1	1200 x 600	18,300	38,200
P.120.C1.2C	120 LPS	2750	570	2400	2970	2300	670	10,230	2600	2480	375	3	600 ID	1	1200 x 600	21,700	43,200
P.150.C1.2C	150 LPS	3360	670	2280	2950	2150	800	13,420	2600	2480	375	4	600 ID	1	1200 x 600	27,700	54,000
P.180.C1.2C	180 LPS	3580	650	2300	2950	2150	800	15,400	2600	2480	375	5	600 ID	1	1200 x 600	32,500	64,800
P.200.C1.2C	200 LPS	4150	555	2395	2950	2230	720	16,500	2600	2480	375	5	600 ID	1	1200 x 600	36,200	72,000

# Key to Main Dimensions & Notes	
A	Invert Level - Depth from top of manhole to base of inlet pipe.
B	Depth from base of inlet pipe to base of tank feet.
A&B	Overall depth of tank, from top of manhole to base of tank feet.
C	Depth from base of outlet pipe to base of tank feet.
D	Invert Level - Depth from top of manhole to base of outlet pipe.
L	Overall length tank.
OD	Overall outside diameter of tank including ribs.
ID	Internal diameter of tank.
S&L	"S" is Short Series Tank & "L" is Long Series Tank.



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We believe clean water is a right not a privilege and we work to ensure a joy in water experience for you with your children and grandchildren.



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