SDS
Water Infrastructure Systems

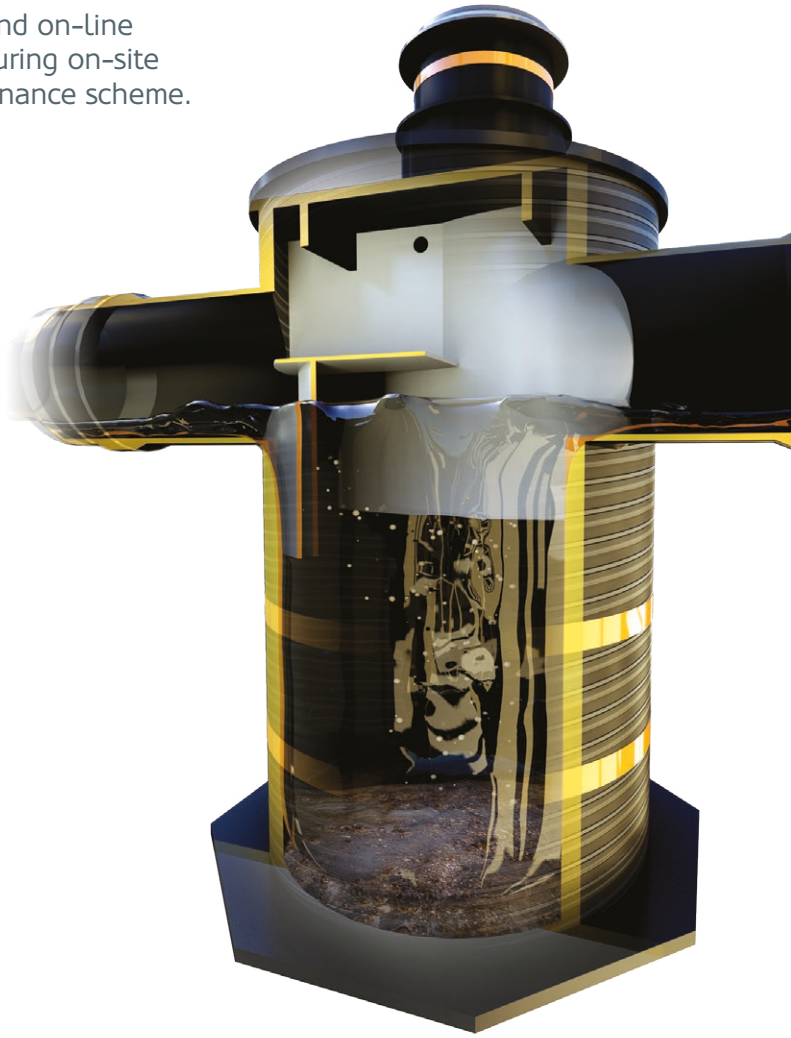
SDS Aqua-Swirl™

Hydrodynamic Vortex Separator

SDS Aqua-Swirl™ is a custom engineered, flow through water quality device that utilises hydrodynamic separation technology to maximise the removal of coarse sediment,debris and free floating oil within surface water runoff.

SDS Aqua-Swirl™ can be installed in both off-line and on-line configurations. It is suitable for use both after and during on-site construction, with the inclusion of a planned maintenance scheme.

- *No moving parts*
- *Sealed baffle vented to surface*
- *Large debris storage chamber*
- *Lifting supports*
- *HDPE plastic construction*
- *Compact dimensions*
- *Available in 9 different sizes*
- *Bespoke sizing available*



SDS Aqua-Swirl™ is sized according to water quality treatment flow rates which are based on the initial movement of pollutants into the storm drainage system. This flow rate typically represents approximately 90% to 95% of the total pollutants in the runoff volume.
The treatment flow rate of the SDS Aqua-Swirl™ system is engineered to meet or exceed the local water quality treatment criteria and form an intrinsic part of the SuDS solution train.

SDS Ltd, Clearwater House, Castlemills, Biddisham, Somerset, BS26 2RE
T: +44 (0)1934 751303
E: info@sdslimited.com

Features	Benefits
Manufactured from high strength plastic components with no moving parts included.	Offers a durable, light weight and low cost alternative to concrete. Easy and quick to install resulting in substantial cost savings.
Specialised sealed baffle vented to the surface.	Delivers the most effective performance of any vortex separator.
Large debris and sediment storage capacity.	Limits the amount of maintenance required.
Single swirl chamber.	Simplifies inspection and maintenance facilities with no special equipment required.
Compact dimensions.	Reduces ground excavation and product installation costs.
Small footprint design.	Can be retro-fitted with minimal disruption to existing infrastructure utilities or surface features, extending the ability to meet new regulations.
Suitable for use during site construction programme.	Can be put into operation prior to completion of the site build, with the inclusion of a planned maintenance schedule.
Installation lifting supports.	Easy installation without the need for large, expensive cranes.
Available in 9 different standard sizes.	Provides greater design flexibility and assists the removal of sediments at a greater rate than comparable systems.
Bespoke units can be manufactured.	Satisfies even the most demanding installations.

SPECIFICATIONS

SDS Aqua-Swirl™ model	Swirl Chamber diameter mm	Max stub-out pipe outer diameter mm		Water Quality Treatment (Litres/sec)		Oil/debris storage capacity litres	Sediment storage capacity m^3
		Off line	BYP [1]	*OK110 avg 110 micron	**NJDEP Avg 67 micron		
AS-2	762	203	381	31	16	140	0.28
AS-3	991	254	533	51	26	416	0.57
AS-4	1295	305	686	91	45	719	0.91
AS-5	1524	305	762	125	62	1022	1.27
AS-6	1829	356	914	178	90	1476	1.84
AS-7	2134	406	1067	243	122	2044	2.55
AS-8	2438	457	1219	317	159	2687	3.26
AS-9	2743	508	1372	402	201	3444	4.11
AS-10	3048	559	1524	495	248	4277	5.10

[1] BYP (Internal Bypass) provides full treatment of the first flush of water while the peak design storm is diverted and channelled through the main conveyance pipe. SDS can supply further details.

* based on OK110 particle size (110 avg micron size).
** based on NEW Jersey DEP (67 avg micron size).

Note: For assistance in design and specific sizing using historical rainfall data, please contact SDS.

CAD details and specifications are available on request.

A-S DS/0516

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