

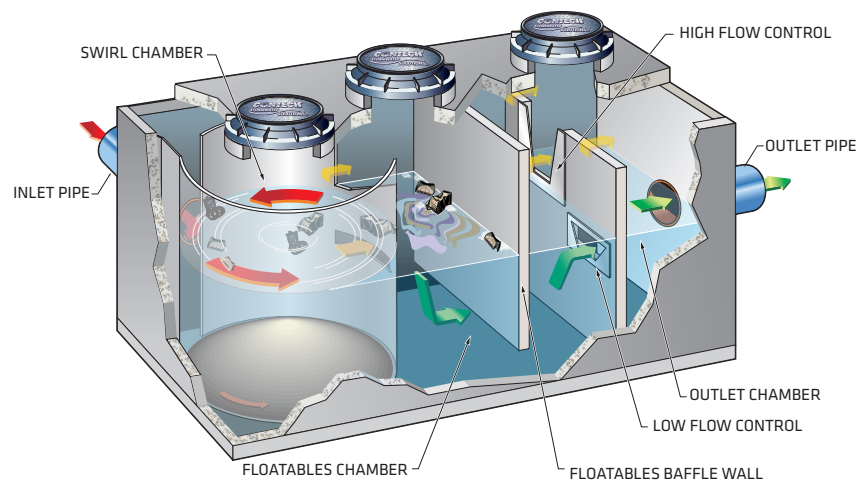
The Vortechs system is a high-performance Gross Pollutant Trap that effectively removes fine sediment, oil and grease, and floating and sinking debris. Its swirl concentrator and flow controls work together to minimise turbulence and provide stable storage of captured pollutants. The design also allows for easy inspection and unobstructed maintenance access. With comprehensive lab and field testing, the system delivers proven results and site-specific solutions. Precast models can treat peak design flows up to 700 L/s; cast-in-place models handle even greater flows. A typical system is sized to provide an 80% load reduction based on laboratory-verified removal efficiencies for varying particle size distributions such as 50-micron sediment particles.

HOW DOES VORTECHS WORK?

Water enters the swirl chamber at a tangent, creating a swirling flow pattern and enhancing gravitational separation. Sinking pollutants stay in the swirl chamber while floating pollutants are stopped at the baffle wall. Typically Vortechs systems are sized such that 80% or more of runoff through the system will be controlled exclusively by the low flow control. This orifice reduces inflow velocity and turbulence by creating backwater appropriate for the site.

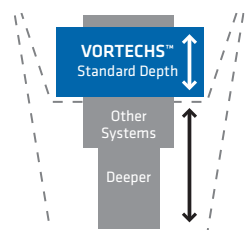
During larger storms, the water level rises above the low flow control and begins to flow through the high flow control. The layer of floating pollutants is elevated above the influent pipe, preventing re-entrainment. The swirling action increases in relation to the storm intensity, which helps prevent re-suspension. When the storm drain is flowing at peak capacity, the water surface in the system approaches the top of the high flow control. The Vortechs system will be sized large enough so that previously captured pollutants are retained in the system even during these infrequent events.

As a storm subsides, treated runoff decants out of the Vortechs system at a controlled rate, restoring the water level to a dry-weather level equal to the invert of the inlet and outlet pipes. The low water level facilitates easier inspection and cleaning, and significantly reduces maintenance costs by reducing pump-out volume.



VORTECHS BENEFITS:

- Independently Tested
- Proven performance speeds approval process
- Treats peak flows without bypassing
- Unobstructed access simplifies maintenance
- Flow controls reduce inflow velocity and increase residence time
- Shallow system profile makes installation easier and less expensive
- Very low headloss
- Flexible design fits multiple site constraints making it ideal for retrofit



CUSTOMER SUPPORT

INSTALLATION

Stormwater360 products are some of the easiest to install in the industry. We provide comprehensive installation details and instructions, as well as full technical support on every project.

MAINTENANCE

Maintenance of Stormwater360 products is cost effective, straightforward and efficient. We offer a complete range of services that can be tailored to your specific site needs.

SUPPORT

- Drawings and specifications are available upon request
- Site-specific design support is available from our engineers.

AVAILABLE MODELS

VORTECHS™	Swirl Chamber Diameter	Internal Length	Water Quality Flow¹ L/s			Peak Treatment Flow²	Sediment Storage
	m	m	50 µm	110 µm	200 µm	L/s	m³
1000	0.9	2.7	5.9	16.7	27.8	45.3	0.5
2000	1.2	3.0	10.2	28.3	48.1	79.3	0.9
3000	1.5	3.4	16.7	48.1	76.5	127.4	1.4
4000	1.8	3.7	22.1	62.3	104.8	169.9	1.8
5000	2.1	4.0	31.1	87.8	147.2	240.7	2.4
7000	2.4	4.3	39.6	116.1	189.7	311.5	3.1
9000	2.7	4.6	51.0	147.2	240.7	396.4	3.7
11000	3.0	4.9	65.1	184.1	303.0	495.5	4.3
16000	3.7	5.5	93.4	263.3	433.2	707.9	5.4

1. Water Quality Flow is based on 80% removal for a particle size distribution (PSD) with an average particle size as listed. Particle size should be chosen based on anticipated sediment load.

2. Peak Treatment Flow is maximum flow treated for each unit listed. This flow represents an infrequent storm event such as a 5, 10 or 20 year storm.

Standard Vortechs System depth below invert is nominal 900mm for all precast models.

Cast-in-place system are available to treat higher flows. Check with your local representatives for specifications.

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