

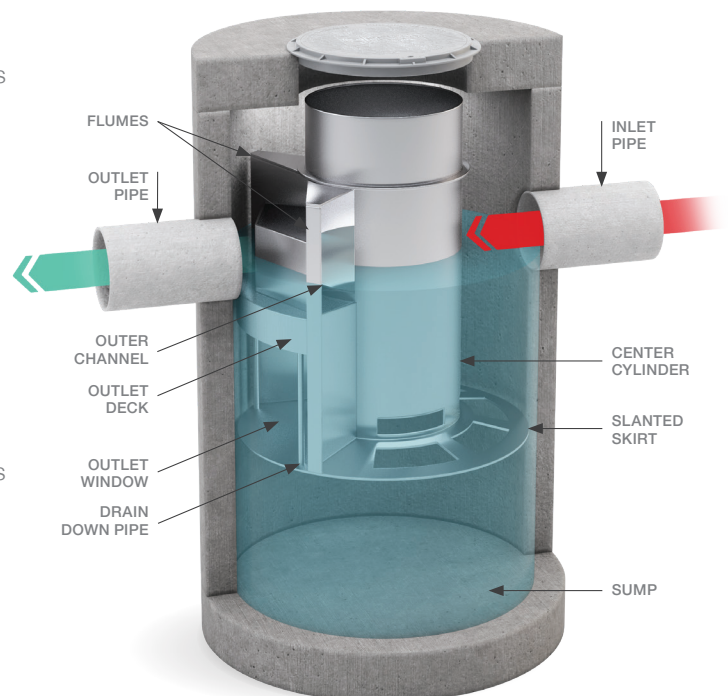
Cascade Separator®

Advanced Sediment Capture Technology

This innovative hydrodynamic separator excels at sediment capture and retention while also removing hydrocarbons, litter, and debris from stormwater runoff. What makes the Cascade Separator® unique is the use of opposing vortices that enhance particle settling and a unique skirt design that allows for sediment transport into the sump while reducing turbulence and resuspension of previously captured material. These two factors allow the Cascade Separator® to treat high flow rates in a small footprint, resulting in an efficient and economical solution for any site.

How does it work?

- Stormwater enters the Cascade Separator® through one or multiple inlets and/or a grate inlet
- As water enters the unit, it impacts the centre cylinder and is directed to two separate flumes
- Water traveling through the opposing flumes enters the center chamber where vortices rotate in opposite directions and facilitate enhanced particle settling
- As water swirls downward sediment settles into the sump and treated water exits through the outlet window before exiting the system
- When flows exceed the capacity of the flumes, the excess water flows over the flumes and exits the system without re-suspending or washing out previously captured pollutants
- The system incorporates a partially perforated slanted skirt that equalizes the pressure between the storage and treatment zone while reducing the potential for scour
- The skirt also allows transport of sediment and debris into the sump zone which improves ease of maintenance since all captured material can be removed through the center cylinder





Features

- Unique skirt design & opposing vortices
- Inlet area accepts wide range of inlet pipe angles
- Accepts multiple inlet pipes
- Grate inlet option
- Internal bypass
- Clear access to sump and stored pollutants

Benefits

- High solids removal
- Reduced system size and costs
- Design and installation flexibility
- Eliminates the need for separate junction structure, grate inlet, and extra pits
- Fast, easy maintenance

Configurations and Applications

The Cascade Separator® range covers most applications and needs. The fully trafficable precast concrete system can be arranged both on-line or off-line with low flow diversion. A range of diameters ensures your treatable flow rate requirement will be satisfied. This design flexibility makes the system ideal for a wide range of applications such as:

- Commercial, industrial and residential development, infill and redevelopment and stormwater quality retrofit applications
- Special projects, including highways, airports, seaports and military installations
- Pre-treatment for subsequent stormwater treatment assets (e.g. StormFilter®, biofiltration)

Maintenance

The Cascade Separator® provides unobstructed access to stored pollutants, making it easy to maintain using a vacuum truck, with no requirement to enter the unit. Speak to the team at Ocean Protect who can help inspect and maintain your Cascade Separator®.