

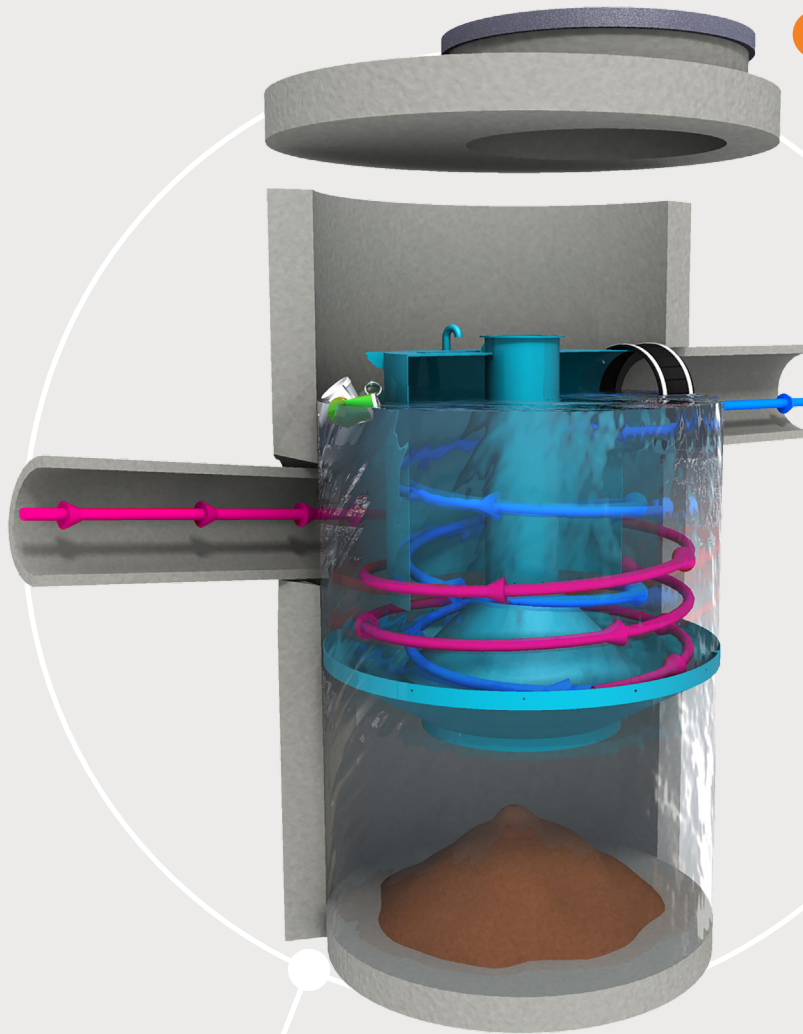
Downstream Defender®

Advanced Hydrodynamic Separation

Tangential Vortex Separation

Configurable Installations

Ease of Maintenance



**Exceptional Pollutant
Capture with a
Compact Footprint**

The Downstream Defender® is an advanced hydrodynamic vortex separator engineered for the effective removal of fine and coarse particles, hydrocarbons, floatables, and other stormwater pollutants. Its cylindrical internal geometry and low-energy vortex separation allow for high removal efficiency across a wide range of flow conditions.

Designed with flexibility in mind, it is available in multiple precast sizes and can be used in both online and offline configurations, making it ideal for various stormwater treatment strategies.

Proven Performance, Flexible Design

With over two decades of real-world field installations, the Downstream Defender® continues to set the standard for reliable, low-maintenance hydrodynamic separation.

Applications

- Removal of total suspended solids (TSS), hydrocarbons, and floatables
- Pre-treatment for ponds, infiltration systems, and green infrastructure
- High-traffic areas such as highways, parking lots, loading docks, and airports
- Projects with space limitations or where high solids/trash capture is a priority
- LEED® and green infrastructure developments

Feature	Benefit
Tangential inlet and cylindrical baffle system	Creates low-energy vortex for efficient pollutant separation with reduced headloss
Available in 5 standard sizes	Fits a wide range of treatment needs and site constraints
Online and offline configurations	Versatility for different hydraulic setups
Internal sump and access shaft design	Speeds up maintenance and lowers lifecycle costs
Protected storage zones	Prevents pollutant re-entrainment during high-flow events

Technical Specifications

Model Size	Max Flow [cfs]	Max Pipe Size [in]	Oil Storage [gal]	Sediment Storage [yd³]	Min. Rim-to-Invert [ft]	Outlet to Sump [ft]
4 FT	3.0	12	70	0.70	2.8	4.1
6 FT	8.0	18	216	2.10	3.2	5.9
8 FT	15.0	24	540	4.65	4.2	7.7
10 FT	25.0	30	1,050	8.70	5.0	9.4
12 FT*	38.0	36	1,770	14.70	5.6	11.2

*12 FT model not available in all areas. Contact Oldcastle Infrastructure for availability.

Maintenance Made Simple

The Downstream Defender® is designed for easy maintenance. Trash and debris remain near the surface and can be removed using a vacuum truck. The unit's center shaft allows straightforward access for sump cleanout, reducing long-term operational costs.

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Full scale solutions.



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