

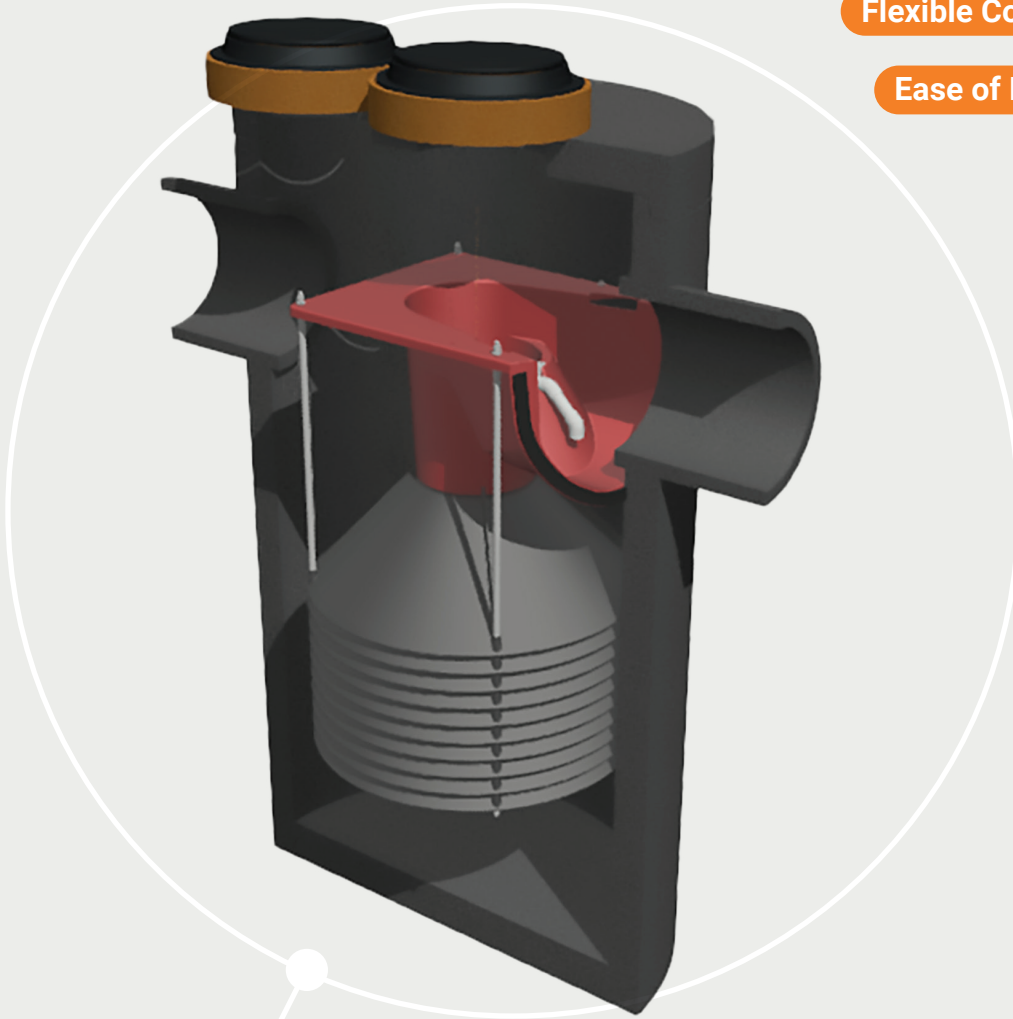
Hydro-Shield® Advance

Advanced Hydrodynamic Separation

Lamella Separation Technology

Flexible Configurations

Ease of Maintenance



**Advanced
Hydrodynamic
Separation**

The Hydro-Shield® Advance is a next generation hydrodynamic separator designed for optimal stormwater treatment, utilizing lamella technology to remove pollutants. With flexible design options it effectively prevents pollutant washout during high-flow storm events, ensuring reliable performance under varying conditions.

High Removal Efficiency

Leveraging over 40 years of engineering excellence, the Hydro-Shield® Advance was designed by the leading water experts from Hydro International, developers of Downstream Defender® and First Defense®. With NJCAT 2021 protocol verified, Hydro-Shield® Advance is the most flexible technology on the market.

Applications

- Removal of total suspended solids (TSS) from stormwater runoff
- New construction or redevelopment of commercial and residential sites
- Pollutant hotspots such as maintenance yards, parking lots, gas stations, streets, highways, airports and transportation hubs
- Site constrained LID or green infrastructure-based developments
- LEED® development projects



NJCAT 2021 Verified



NJDEP Certified

Feature	Benefit
Variable Pipe Angles	NJDEP certified for alternative inlet pipe angles, the first and only hydrodynamic separator to achieve this approval. This allows for direct connections that previously required junction structures resulting in smaller footprints, simplified layouts, and reduced installation costs—while still meeting stormwater performance standards.
Bypass flow only limited by pipe size.	Easy retrofit design and online use to reduce number of structures and manage cost.
Configurable cone stacks by manhole size and depth.	More flexible depth and footprint configurations when working in space constrained sites, especially rock or high ground water.
Model size overlap.	Pipe size, peak flows, and treatment flows are not locked to one size chamber, allowing for optimized design and cost control.
Treatment flow overlap.	Engineers don't have to specify the exact model, allowing contractors to work with us based on site conditions and other factors to get the best value option.

Technical Specifications

Hydro-Shield® Advance - Sizing Table				
Unit Size	Configuration	Model Number	Max WQ Flow [cfs]	Max Pipe Size [in]
4 FT	Shallow	HSA-4S	0.44	18
	Standard	HSA-4	0.96	18
	Plus	HSA-4P	1.48	18
6 FT	Shallow	HSA-6S	0.98	24
	Standard	HSA-6	2.16	24
	Plus	HSA-6P	3.33	24



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