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INFRASTRUCTURE SOLUTIONS DELIVERED
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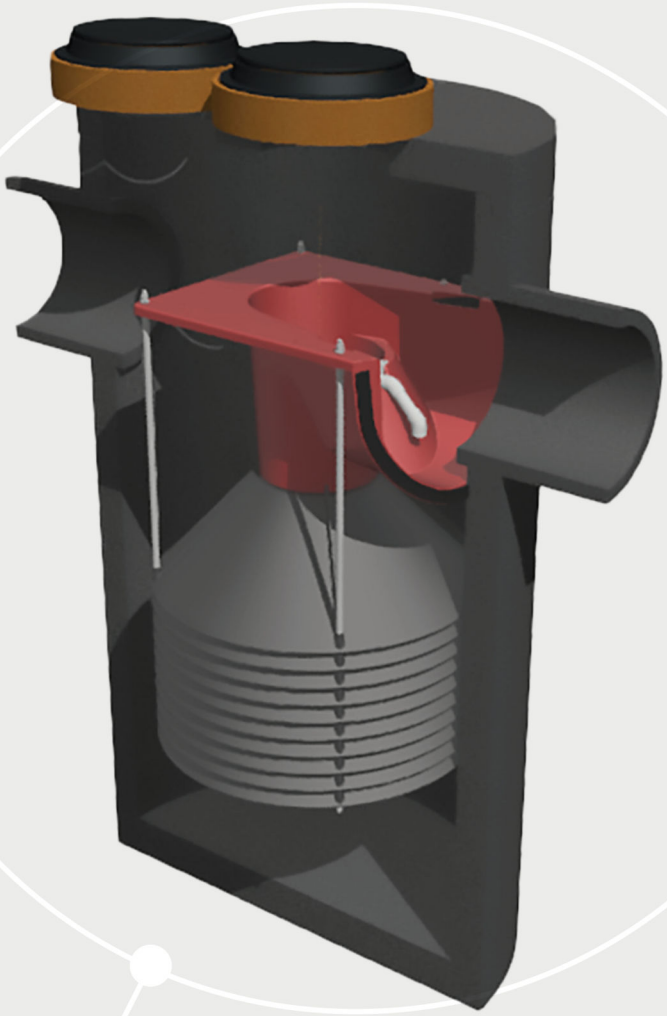
Hydro-Shield™ Advance

Advanced Hydrodynamic Separation

Highest Flow Rates on the Market

Flexible Configurations

Ease of Maintenance



Advanced Hydrodynamic Separation

Oldcastle Infrastructure™
A CRH COMPANY

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.

Power Flow, 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 NJCAT2021 protocol approval, utilize the advanced hydrodynamic separator with the highest treatment flow rate available on the market.

Applications

- Removal of total suspended solids (TSS) and floatable trash 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

Technical Specifications

Hydro-Shield™ Advance - Sizing Table

Unit Size	Configuration	Model Number	Max WQ Flow [cfs]	Peak Flow[1] [cfs]	Max Pipe Size [in]
4 FT	Shallow	HSA-4S	0.44	7.4	18
	Standard	HSA-4	0.96	7.4	18
	Plus	HSA-4P	1.48	7.4	18
6 FT	Shallow	HSA-6S	0.98	15	24
	Standard	HSA-6	2.16	15	24
	Plus	HSA-6P	3.33	15	24

1. Governed by peak hydraulic flow of max pipe size.
2. If exceeded, system will enter bypass at lower flow rates than the stated MTF.
3. Current NJ approval for a single inlet pipe, co-linear with outlet pipe (no inlet pipe angle).
4. Recommended maintenance intervals, based on 50% full sump:
   Shallow 154 months
   Standard 70 months
   Plus 45 months

Feature	Benefit
Highest treatment flow rate available on the market.	Smaller Footprint for lower costs.
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.

Trusted partnerships.
Full scale solutions.

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