



## StormTrooper®

### The Premier Stormwater Hydrodynamic Separator

The ParkUSA StormTrooper® is the most advanced hydrodynamic separator (HDS) available in the industry. Our state-of-the-art system employs patented technology to effectively remove sediments, trash, and oil from stormwater runoff, ensuring responsible environmental practices and compliance with the EPA Clean Water Act.

The StormTrooper® is proven technology with thousands of successful installations across the globe. It is specifically engineered to capture and remove pollutants before entering public waterways, rivers, aquifers, lakes, and oceans. The units can run independently or be used as part of a larger system to treat and manage stormwater runoff.

### Applications

Pretreatment • Standalone treatment • Upstream or downstream of detention ponds • Spill prevention • Gas stations • Landfills and waste management • Retrofit • In combination with other stormwater practices

### Advantages

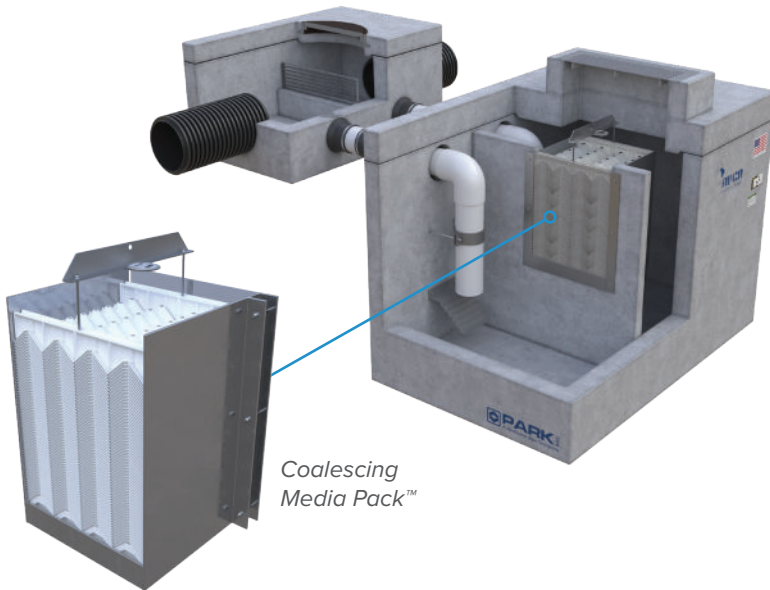
- Factory-assembled for quick and efficient installation
- Minimal head loss and hydraulic gradient between inlet and outlet
- Third-party tested by Southwest Research Institute (SwRI)
- Durable precast concrete construction for strength and long-lasting performance
- Scalability customized to suit project requirements
- Can be used with multiple inlets



Steel Model



Fiberglass Model



Coalescing Media Pack™

## How It Works

The StormTrooper® system can be used as a part of a train within a stormwater management system to treat and manage stormwater runoff. The system features a patented design with coalescing plate technology and is specifically engineered to capture free oil and sediment from stormwater runoff and retain these pollutants for periodic removal. The system targets the “first-flush” flow, which occurs during the initial phase of a storm event and carries most pollutants from catchment areas.

Each unit utilizes coalescing media to enhance the removal of oil and other fine particles. The process works by providing a large surface area where small oil droplets and fine particles present in stormwater runoff adhere to the media. As the droplets and particles accumulate, they merge or coalesce to form larger droplets or clusters. These larger droplets or clusters eventually separate from the media due to gravity, allowing for easier removal and collection.

The system is designed to handle varied flow rates, from low to very high. Internal components include a baffle system which helps to improve pollutant removal by reducing turbulence and promoting the separation of contaminants. To accommodate excessive flow, our hydrodynamic separator incorporates a bypass mechanism that allows only the design flow to pass through the interceptor while diverting high flows directly to the storm sewer system. This prevents scouring and the resuspension of captured pollutants from previous storm events.



Full product catalog available at [request.parkusa.com](http://request.parkusa.com)

[sales@parkusa.com](mailto:sales@parkusa.com)  
[www.parkusa.com](http://www.parkusa.com)

## System Components

**Construction:** Precast concrete, fiberglass, or steel construction available.

**Control Manhole:** Ties directly into the storm sewer line; contains a weir wall to divert flow through the separator unit for treatment in the first flush.

**Trash Screen:** Captures large debris when the unit is under standard flow conditions.

**Separator Unit:** Stormwater flows from the control manhole into the separator unit for treatment.

**Coalescing Media Pack™:** Patented coalescing plate technology provides advanced separation of oils and hydrocarbons.

**Heavy-Duty Access Covers:** Enable easy access for cleaning and maintenance.

