PARK USA
A Northwest Pipe Company

Storm Trooper® AQ
Edwards Aquifer Design
Stormwater Quality Wet Vault
Patent No: 7,470,361

Environmental Protection
2012
NEW PRODUCT OF THE YEAR

Features

- Valuable best management practice (BMP)
- Larger effective area (EA) Treatment
- Low profile design
- LEED Compliant
- Enhanced gravity separation, utilizing CMP technology
- Manufactured in Texas
- Third Party tested by Southwest Research Institute (SwRI)

Stormwater Treatment

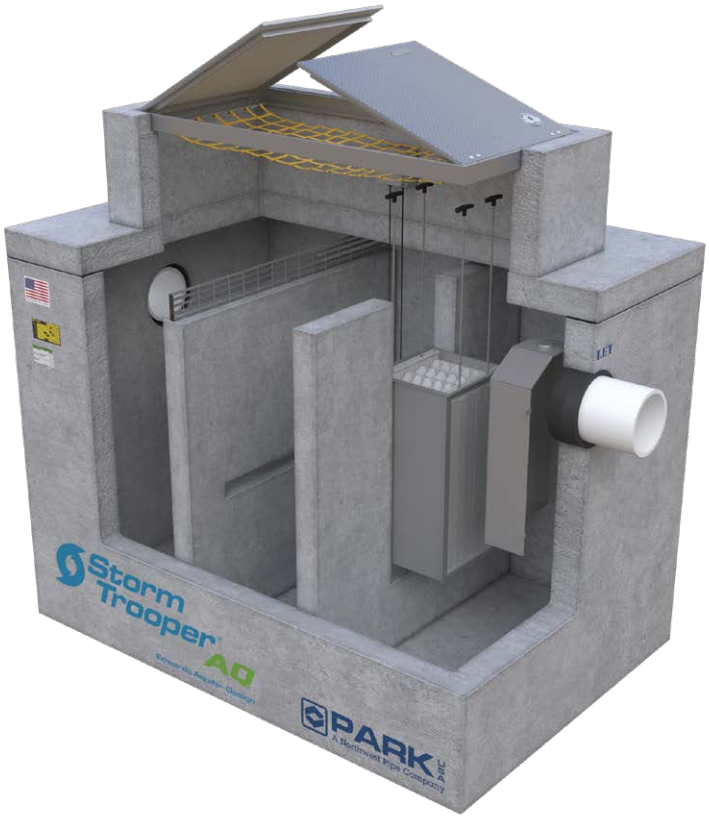
The ParkUSA® StormTrooper® Model SWAQ is a patented stormwater quality system specifically designed for sensitive environments. It removes sediments and oil from stormwater runoff. The SWAQ was originally designed for the Edwards Aquifer, meeting all requirements for this sensitive aquifer's recharge zone. The unit consists of a separator with internal flow control.

The StormTrooper® AQ is a patented stormwater wet vault specifically designed to intercept free oils, grease, total suspended sediments (TSS), debris, and other pollutants found in stormwater runoff. The StormTrooper® AQ features enhanced gravity separation technology, which utilizes coalescing media plates (CMP) engineered to a performance prediction based on Stokes's Law. This cutting-edge technology is now available for use to protect the Edwards Aquifer and other sensitive watersheds for future generations.

#BUILDING AMERICA!

SW | STORMTROOPER AQ Standard

LEED® COMPLIANT · NPCA · Steel Tank Institute® · ASPE American Society of Plumbing Engineers℠ · ASTM · BMP® BEST MANAGEMENT PRACTICE · IPC® INTERNATIONAL PLUMBING CODE · UPC®



How it Works

Untreated storm water enters the “Grit Chamber” on the inlet side of the StormTrooper® AQ. Larger particles, as well as semi buoyant material, are captured in this chamber to prevent excessive clogging and obstruction of the frontal area of the coalescing media plates. This process also reduces the potential for short circuiting and higher velocities through the plates. The “diffusion baffle,” which separates the two chambers, works to perform two vital functions. First, it distributes flow evenly through the entire cross-section of the unit allowing for a more uniform delivery of pollutants through the plate. Next, a water quality orifice regulates flow through the plates and the lower section of unit to prevent re-suspension of pollutants. Each StormTrooper® AQ has a specific maximum flow rate that has been pre-calibrated. Higher flow rates by-pass the system once the pre-calibrated flow rate is exceeded.

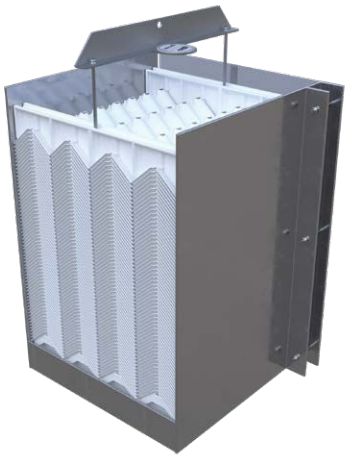
Coalescing Media Plates (CMP): A submerged oil/floatable baffle is located around the effluent pipe to allow for the capture and containment of these pollutants. Collected pollutants will remain in the interceptor until removal. Because no filter cartridges are required operating costs are minimal. Furthermore, the StormTrooper® AQ System has no moving parts substantially reducing maintenance costs. As stormwater pollutants travel through the CMP pack, oil rises to the top and solids drop to the bottom through dedicated surfaces and weep holes. Plate supports at the bottom allow for easy removal of the solids that collect beneath the plates. Because of the steep angles and short travel distances, oils and solids are quickly released from the plates, oil eventually floating to the surface of the StormTrooper® unit and solids settling to the bottom of the unit.

To request a quote or catalog, visit **request.parkusa.com.**

System Components

The StormTrooper® AQ consists of a control manhole connected to a separator unit to remove debris (TSS) and hydrocarbons from stormwater. The separator unit, is connected to the control manhole by means of a flexible resilient rubber boot (mortar joint). The unit maintains a minimum separation of 36 inches between the Control Manhole and the Separator Unit.

The separator unit contains standard prefabricated inclined parallel corrugated plate for intermittent and variable flows of water, oil or any combination of non-emulsified oil-water mixtures ranging from zero-flow up to one hundred percent of the maximum hydraulic capacity. This will allow the separator unit to maintain an acceptable water effluent.



Coalescing Media Plates

As stormwater pollutants travel through the CMP (coalescing media plate pack) oil rises to the top and solids drop to the bottom through dedicated surfaces and weep holes. Plate supports at the bottom allow for easy removal of the solids that collect beneath the plates. Because of the steep angles and short travel distances, oils and solids are quickly released, eventually floating to the surface of the unit or settling to the bottom.

APPLICATIONS

- Good to use in BMPs
- Parking Lots Streets & Highways
- Low Impact Development
- Industrial
- Green Infrastructure