



HydroRecycle®

Economical and Sustainable Water Recycling Solution for Car Wash Owners

HydroRecycle® by NWPX Park is a water reclamation system that provides an economical and environmentally sustainable water recycling solution for car wash owners. Designed with flexibility in mind, we customize each system to the exact specifications and unique site requirements of your car wash operation.

HydroRecycle® utilizes advanced gravity flow technology to separate sediments and oils typically found in car wash water. This system consists of a series of three two-compartment precast concrete vaults and a sand-oil separator at the end of the treatment train. The design uses the difference in specific gravities between sediment, oil, and water (buoyancy force) to clarify car wash water for reuse, and is enhanced with patented coalescing media plates that ensure proper pretreatment and compliant discharge of wastewater to the sanitary sewer system.

Advantages

- Pre-assembled and ready for connection
- High-strength precast concrete construction
- Easy maintenance
- Choice of interior protective liners
- Compatible with all major brands of automatic car wash equipment





How It Works

The NWPX Park HydroRecycle® system utilizes state-of-the-art flow technology to separate sediments and oils from car wash water. The treatment process involves multiple stages of wash water clarification.

First, wash water flows through baffled precast concrete reclamation tanks, which reduce water velocity and remove settleable solids like sand and grit. Filtered water rises to the top while solids settle at the bottom. Ozone is added to the tanks to achieve the best water chemistry for reuse. As fresh water enters the system via the rinse cycle, wash water is displaced. The reusable wash water is sent for further polishing via reverse osmosis and ozonation before returning to the wash cycle as clean water.

Wash water that is unsuitable for reuse flows into the oil-water separator. Here, an enhanced gravity separation technique occurs, as influent strikes a corrugated diffusion baffle then flows through a series closely spaced corrugated plates. The plates feature an oil-attracting material to coalesce oil droplets. This pretreatment process ensures wastewater discharge complies with municipal standards.

System Components

- Baffled concrete reclamation tanks
- Oil-Water Separator
- Coalescing Media Pack™ (CMP)
- Traffic-duty access covers and hatchway
- Water level sensors
- Resilient pipe gaskets
- Control panel and remote service alarm (optional)



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