

# RUNOFF & WASH WATER DIVERSION

FOR FIRST FLUSH APPLICATIONS





Fox Valve
First Flush
Washdown Diversion

SYSTEM FF-600

The Fox First Flush Washdown Diversion System from ParkUSA is specifically designed to manage water runoff in outdoor equipment wash areas that lack roofs. The diversion system collects wastewater and routes it to the proper sewer system by sensing the trigger-pull of the pressure wand or the turning on of the faucet.

The FF-600 is best suited for areas over 200 square feet where pollutants might remain after a washdown or similar activity. Subsequent rain could discharge pollutants from the wash pad into the stormwater system, which may eventually end up in waterways. The FF-660 automatically diverts the "first flush" or rain runoff into the sanitary sewer.

## **Advantages**

- Provides treatment for large washdown areas.
- Provides treatment for "first flush" runoff.
- Wash pad area roof is not required.
- Easy to specify, install, and maintain.
- Saves money on building construction, utilities, insurance, property taxes, and maintenance.
- Avoids expensive environmental fines and protects the environment.
- IAPMO UPC IGC234 certified, and city approved.
- System is pre-engineered and uses proven technology.

# **Applications**

- · Car Wash and Detail Facilities
- Parking Garages
- Roofed Wash Bays subject to windblown rain
- Trash Dumpster and Compactor Drainage Areas
- Machinery and Workshop Washdowns
- Marinas, Slipways, and Ports
- Heavy Equipment Washdowns
- Rail Yards
- · Vehicle Dealerships
- Aviation/Airports
- · Fuel/Gas Stations
- · Pet Parks, Kennels, Zoos







#### **How It Works**

The FF-600 First Flush Washdown Diversion System includes a drain chamber with a surface grate inlet and two outlet pipes: one leading to the storm sewer outlet and the other to the sanitary sewer outlet. An automatic diversion valve, powered by water hydraulics, is located on the sanitary sewer outlet.

In the absence of washdown, runoff collected in the drain chamber during rainfall events flows out through the storm sewer outlet when the level rises in the chamber.

Wash Cycle: During washdown operations, wastewater is collected in the drain chamber. The diversion valve senses the hydraulic signal generated by the pressure washer in use and opens to allow the wastewater to flow out to the sanitary sewer. After the washdown, the diversion valve closes and performs a batch release sequence by briefly opening to capture and divert the volume of wastewater equivalent to the 'first flush' rainwater capture (typically ½" of water on the entire wash pad). This operation is performed by the PLC control system and a float switch in the drain chamber.

Rain Cycle: During a rainfall event, the system can provide 'first flush' treatment of the runoff. The drain chamber collects and fills with the initial rainfall runoff. The system then initiates a batch release sequence by briefly opening to divert the volume of wastewater equivalent to the 'first flush' rainwater capture (typically ½" of water on the entire wash pad). This operation is performed by the PLC control system and a float switch in the drain chamber.

Based on pollutant loads and catchment area, the PLC controller determines the first flush volume and diverts the wastewater for treatment accordingly. Subsequent rainfall events are drained to the storm sewer until the next wash operation.



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### **System Components**

- Diversion Valve (4- or 6-inch; discharge capability of 330 gallons per minute at 20 inches head)
- Demand Valve (1-inch NPT with 170 PSI rating; 1/2-inch drive line connection)
- Drainage Chamber (HDPE, stainless steel, precast concrete, or fiberglass construction)
- Silt Basket (HDPE with steel handles)
- Grating (heavy-duty ductile iron grate or light-duty galvanized steel hinged grate and frame)
- Control System and Cable
- Potable Water Inlet (1-inch pressure water from water source)
- Drive Line (1/2-inch copper or PVC piping from demand valve to the diversion valve)
- Potable Water Outlet (1-inch)
- Stormwater Outlet (4- or 6-inch)
- Sanitary Sewer Outlet (4- or 6-inch)
- Precast Concrete Basin Direct bury and rated for H20 traffic loading.
- Flow Switch (available to enable remote or multiple wash water supplies)



First Flush Diversion System (FF-600) Recommended for wash areas over 200 square feet.



