

INGENIOUS WDS 600 DEMAND DRIVEN

**DIVERSION SYSTEM
NO ELECTRIC NEEDED; NO ROOF NEEDED
SUITABLE FOR BUT NOT LIMITED TO THE FOLLOWING USES.**

Airport Wash Sites, Container Wash Bays, Dog Kennels and Dog Parks, Emergency, Pool, Deck and Beach Showers, Fast Food, and all Trash Bin Locations, Fire Truck Wash Down, Trash Can Wash Down, Loading Docks, Marinas, Military Equipment Wash Pads, Rental Car Locations, Schools Food and Trash Bin Areas and other Unroofed Wash Pads.

OPERATION:

The WDS 600 DEMAND DRIVEN DIVERSION SYSTEM shall automatically send wash water to sewer and rainwater to the storm drain. Activation of the water hose tap is the only knowledge necessary for operation.

Specifications for Model WDS 600 Demand Driven Diversion System.

PART 1 GENERAL

1.1 DESCRIPTION

A. Furnish and install _____ WDS 600 Demand Driven Diversion Systems. System shall be complete to include the following: A HEAVY-DUTY Molded Fiberglass Pit with Hydrocarbon Baffle, A C89833 Lead Free Brass Diversion Valve, A C89833 Lead Free Brass Demand Valve, A Stainless-steel Silt and SOLIDS Basket, A HEAVY DUTY H2O CAST IRON FRAME & ADA STYLE GRATE.

B. Demand Driven Diversion System shall be a Model WDS 600 or approved equal and shall not require electricity for operation.

C. It is the intent of these specifications to have one supplier provide equipment within this section for the sole system responsibility. The basis of selection will be made to the responsible and qualified bidder. Bidders are advised that all specifications must be strictly followed. Suppliers that are named in specifications have been identified as being qualified to propose the equipment specified. The Contractor is responsible for determining compliance of a supplier's equipment to the specifications. Alternate proposals, if offered, will not be considered as the basis of selection. Proposals deviating from or taking exception to the specification requirement will be deemed unresponsive.

D. The WDS 600 Demand Driven Diversion System shall be marked "MADE IN USA"

E. Approved supplier: WASTEWATER DIVERSION SYSTEMS, INC. 8417 Erle Road, Mechanicsville, Virginia 23116, 804-873-1798, foxwwdsusa@aol.com or Engineer approved equal.

F. THE WDS 600 DEMAND DRIVEN DIVERSION SYSTEM MUST BE "MADE IN USA"

1.2 SUBMITTALS

SD-01 Shop Drawings.

WDS 600 Demand Driven Diversion System

SD-02 Product Data.

WDS 600 Demand Driven Diversion System

Submit Manufacturer's standard drawings or catalogue cuts.

SD-03 Manufacturer's Instructions.

Manufacturer's Instructions Manual

SD-04 Operation and Maintenance Data.

Operation and Maintenance Manual

1.3 SPARE PARTS

The manufacturer of the WDS 600 Demand Driven Diversion System shall provide a list of spare parts required for 1 year of service for each system provided at this site. All spare parts shall be boxed and labeled for ease of storage at the purchaser's warehouse.

2.1 MATERIALS

All components of the WDS 600 Demand Driven Diversion System herein described shall be C89833 Lead Free Brass, fabricated and manufactured from new, unused materials, free from defects, and of the highest quality possible. The valve body, stem assembly and wetted components of the

WDS 600 Demand Valve and Diversion Valve shall be made of corrosion resistant materials with all metal parts complying with the following requirements.

(a) Brass alloys shall have a minimum copper content of 86% by weight and be 100% lead FREE.

(b) Stainless Steel alloys shall be 304 SS.

(c) Austenitic Stainless-Steel alloys shall contain up to 20% chromium and up to a maximum 10.5% nickel.

2.2 WDS 600 DEMAND VALVE

The WDS 1" Demand Valve shall be SUPPLIED by WASTEWATER DIVERSION SYSTEMS, INC. or approved equal. The Demand Valve shall be of C89833 LEAD FREE Brass & Stainless-Steel construction and shall be totally automatic, hydraulically operated, inline serviceable and perform the following functions.

(a) Hydraulically detect water use and supply the drive line with the appropriate pressure to open the pit installed Diversion valve and have the following features:

(b) a minimum sensitivity of 2 liters per minute activation flow.

(c) a sensitivity adjustment for drive line flow.

(d) be marked made in USA, working pressure and Model WDS 1"

(e) be installed after an ZURN 975XL RPZ OR AN ASSE 1013 compliant RPZ with line strainer and, to avoid all "failure to install excuses" the RPZ shall be supplied by WASTEWATER DIVERSION SYSTEMS, INC. WITHIN THE SHIPPED WDS 600 DEMAND DRIVEN TRANSFER SYSTEMS PACKAGE.

2.3 PIT MOUNTED TRANSFER VALVE

The WDS 600 Pit Mounted Diversion Valve shall be supplied by WASTEWATER DIVERSION SYSTEMS, INC. marked "MADE IN USA". The Diversion Valve shall be of C98933 Brass and stainless-steel construction, be 100% LEAD FREE and not need lubrication of any type. The transfer valve shall be operated hydraulically. Electric or manual valves will not be acceptable in this application. The Pit Mounted Diversion Valve shall open to sewer or other treatment and shall have the following features.

(a) shall have a positive closure seal

- (b) shall have a minimum discharge of 200 gpm**
- (c) shall have a 4" or 6" outlet to sewer and 4" or 6" outlet to storm drain.**
- (d) shall have only 3 holding points for easy removal**
- (e) shall operate during power failure.**

2.4 DIVERSION PIT

The Diversion Pit must be Hand Laid, Heavy Duty Molded Fiberglass of 1/4 inch minimum thickness at non stress areas. The transfer pit shall have minimum inside dimensions of 21-1/2 inches x 21-1/2 inches and 16-1/2 inches deep and shall have a 4" or 6" inch bottom outlet to sewer and a 4- or 6-inch side outlet to storm drain. The white interior and exterior gel coat shall be chemical resistant. The internal outlet to storm drain shall be baffled to cause the water to discharge from the pit bottom behind baffle. This baffle will keep all free-floating hydrocarbons in pit and will send all free-floating hydrocarbons to sewer at next activation of wash down. The pit shall be equipped with the following:

- (a) a removable stainless-steel solids and silt basket.**
- (b) Heavy-Duty H-20 traffic rated, ADA Cast-Iron Grate and H 20 rated cast iron Frame.**
- (c) be installed in accordance with manufacturer's written instructions and the contract documents.**
- (d) Couplings for sewer and Stormwater outlet shall be Fernco or approved equal and shall be supplied by Wastewater Diversion Systems, Inc. and shipped inside the WDS 600 package.**
- [E] Pit bottom Diversion Valve location must be recessed 1 inch so pit will drain 99% complete when diversion valve is open to sewer.**
- [F] Due to possible damage from compaction at installation or truck traffic afterwards, LDPE Polyethylene Pits will not be acceptable for this application.**

2.5 TRAFFIC RATED CAST IRON GRATE

Frame and Grate shall be Traffic Rated Cast Iron with a H20 Load Rating 32,000 pounds axel loading and 16,000 pounds wheel loading. Grate and Frame shall comply with AASHTO Bridge Design Criteria.

[A] Heavy Traffic is possible so fabricated galvanized steel grates will NOT BE ACCEPTABLE for this application.

2.6 TRASH CAN WASH

When specified the Transfer System will be fitted with a Trash Can Wash for washing and rinsing of trash cans or other containers.

{a} Pit will be pre-fitted with a BETE free passage, full cone, clog resistant nozzle. The nozzle will be adjustable for 30-, 60-, 90- and 120-degree spray patterns.

{b} Piping in pit for the spray nozzle shall be copper or stainless steel and be accessible on the exterior during installation for a water connection by the contractor.

{c} Nozzle shall extend through center of the silt basket and within ½ inch of exiting the top of the grate.

Part 3 EXECUTION

3.1 INSTALLATION

A. Delivery and Storage

(A) Upon delivery of the equipment to the jobsite, the contractor shall take inventory of the shipment and immediately report to the equipment manufacturer any discrepancies between the equipment manufacturer's packing list and shipping documents.

(B) The contractor shall be responsible for off-loading and protection of all equipment against damage and during on-site storage and installation. Damaged equipment and materials will be replaced by the contractor at the contractor's expense.

3.2 SYSTEM START UP AND TRAINING

(A) Supplier of all equipment within this section shall provide 1/2 day of start - up service to inspect system installation, train maintenance personnel on the operation of the system and review operation and maintenance manual. \$800 per- diem plus expenses will apply.

(B) The contractor shall verify in writing that the project is ready for the manufacturer's field services. Copies of written verification shall be sent to: WASTEWATER DIVERSION SYSTEMS, INC. MECHANICSVILLE, VIRGINIA 23116, 804-873-1798 FOXWWDUSA@AOL.COM IN ORDER TO SCHEDULE START UP AND TRAINING.

(C) At a minimum the start - up shall consist of the following.

(D) Inspect the final installation to ensure it complies with the manufacturer's recommended installation procedures.

(E) Start-up of the equipment in the presence of the contractor and owner's operating personnel to confirm opening and closing of the transfer valve.

(F) Filling out and returning commissioning report to WDS, Inc.

3.3 WARRANTY

The equipment/system warranty, unless otherwise stated, shall be warranted to be free of defects in materials and workmanship the life of the system. The warranty will be voided if the equipment is not installed per the manufacturer's instructions and covers only defects in materials and or workmanship.

The WARRANTY will be voided if start up is performed by other than WASTEWATER DIVERSION SYSTEMS, INC. 8417 Erle Road, Mechanicsville, Virginia 23116, 804-730-1280, foxwwdsusa@aol.com or by anyone NOT designated and authorized in writing by WASTEWATER DIVERSION SYSTEMS, INC.