

WDS 400 SERIES
BEACH, DECK & POOL, SHOWER DRIVEN DIVERSION SYSTEM
MODEL WDS 400

Specifications for WDS 400 Shower Water Diversion System. For use with Roof Top Showers, Beach Showers, Pool Showers, Resort Deck Showers, Hospital Chemical Showers & all sites where shower water must be kept out of the storm water system and rainwater out of treatment system.

PART 1 GENERAL

1.1 DESCRIPTION

A. The system shall be complete to include a fiberglass or stainless-steel pit, a pit mounted Diversion Valve, one each of hot and cold-water Demand Valves, a stainless-steel Silt and Solids Basket and an H2O ADA compliant Cast Iron Grate & Frame. Shower heads and plumbing by others.

B. The WDS 400 Shower Driven Diversion System shall be manufactured by Wastewater Diversion Systems, Inc. Mechanicsville, VA in the USA, or an Engineer approved equal system that does 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 adhered to. Suppliers that are named in specifications have been identified as being qualified to provide the equipment specified. The bidder is responsible for determining conformance of a supplier's equipment to meet 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. Operation: The Demand Valve will receive a hydraulic signal from either hot or cold water when the shower is in use. The Demand Valve will automatically send water down the drive line to open the pit mounted hydraulically operated Diversion Valve. With Diversion Valve open, all shower wash water will exit through the Diversion Valve into the sewer. When shower is not in use, the Diversion Valve will remain closed sealing the sewer from rainwater. Rainwater will fill the pit and overflow under the hydrocarbon baffle into the stormwater drain.

E. WDS 400 Shower Driven Diversion System shall be Made in the USA

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

1.2 SUBMITTALS

SD-01 Shop Drawings.

WDS 400 Shower Driven Diversion System

SD-02 Product Data.

WDS 400 Shower 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 Date.

Operation and Maintenance Manual

1.3 SPARE PARTS

The Manufacturer of the Shower 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 Shower Driven Diversion System herein described shall be 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 Demand Valve and the Pit Mounted Diversion Valve shall be made of corrosion resistant lead-free materials with all metal parts complying with the following features.

(a) Brass alloys shall be C89833 LEAD FREE

(b) Stainless Steel alloys shall be 304 SS.

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

2.2 DEMAND VALVE

The WDS 1" Demand Valve shall be by Wastewater Diversion Systems, Inc. or equal. The Demand Valve shall be Lead free C89833 Brass and 304 stainless-steel construction and shall be totally automatic, hydraulically operated and inline serviceable and perform the following functions:

(a) Hydraulically detect shower usage and supply the driveline with the appropriate pressure to open the pit mounted transfer valve and have the following features:

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

(c) a sensitivity adjustment to drive line flow.

(d) be marked, Made in the USA

(e) be installed after an ZURN 975XL RPZ or 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. SHIPPED INSIDE THE SHOWER DRIVEN DIVERSION SYSTEM PACKAGE.

2.3 SHOWER DRIVEN PIT MOUNTED DIVERSION VALVE

The Pit Mounted Diversion Valve shall be Wastewater Diversion Systems, Inc. WDS 6 inch or equal. The Diversion Valve shall be Lead Free C89833 Brass and 304 Stainless-Steel construction 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 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 75 GPM @ 2'/th

(c) shall be WDS 6-inch transfer valve and marked as such

(d) shall have only 3 holding points for easy removal

(e) shall operate during a power failure for washdown

(f) be marked, Made in the USA

2.4 TRANSFER PIT

The WDS 400 Diversion Pit shall be Heavy Duty, Chemical Resistant Fiberglass. The diversion pit shall be 16" x 16" inside bottom and 18-3/8" tall to top of grate. The grate frame dimension shall be 19-1/8" x 19-1/8" square at top. The transfer pit shall have a 2-inch bottom outlet to sewer and a 2-inch baffled side outlet to storm water, baffled to keep floating pollutants inside of pit until the next showering event. The pit shall be equipped with the following:

- (a) a stainless-steel silt and solids basket
- (b) ADA style grate
- (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. within the Shower Driven Diversion System.
- (e) Baffle stormwater outlet to keep floating pollutants from a rain event in the pit and be transferred to sewer at next shower activation.

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 one (1) 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. PO Box 389 MECHANICSVILLE, VIRGINIA 23111, 804-873-1798 FOXWWSUSA@AOL.COM IN ORDER TO SCHEDULE START UP AND TRAINING.

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

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

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

(3) 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 for the LIFETIME of the system. The warranty will be voided if the equipment is not installed per the manufacturer's instructions.

The equipment 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 a designated service company approved & authorized in writing by Wastewater Diversion Systems, Inc.