

Poseidon Filtration System™ — Backwash Troughs

Stainless Steel or Fiberglass Reinforced Plastic with Ortho-Wash™ Baffle Option

Key Benefits:

- Wide range of capacities
- Economic variety of solutions
- Reinforced for strength
- Long service life
- Adjustable straight-edge or V-notch weir plates available

With Ortho-Wash™ Baffles:

- Negligible media loss during simultaneous air scour and backwash at prescribed rates



Stainless Steel Backwash Troughs

Poseidon Filtration Systems™ deliver to municipal clientele complete systems that include PLC-based controls, monolithic floor underdrains, backwash troughs, air header piping, and filtration media.

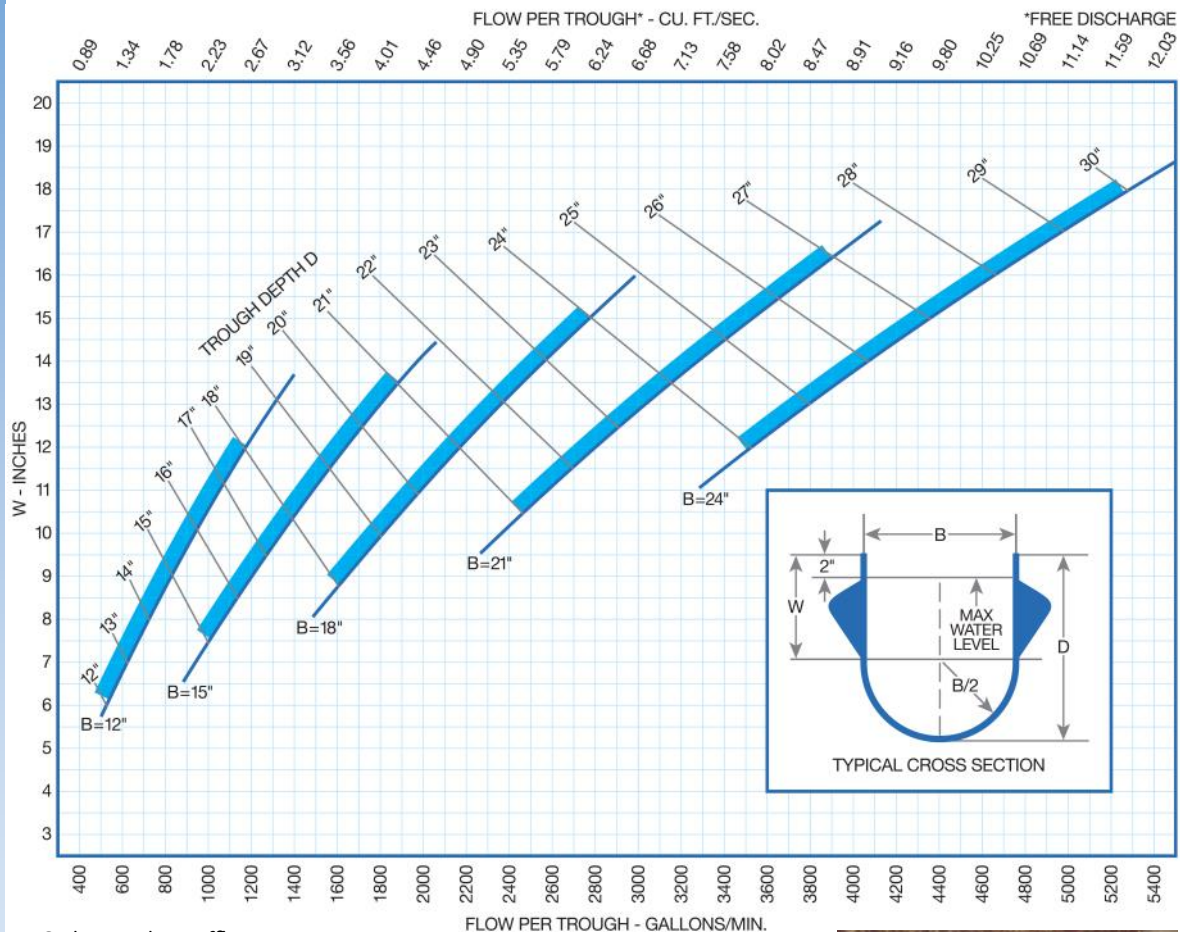


Fabricated from 304/316 stainless steel or fiberglass-reinforced plastic (FRP), *Poseidon* backwash troughs are engineered to uniformly and efficiently remove washwater during backwashing of gravity filters. Troughs are manufactured in a wide range of capacities to meet any practical design requirement.

FRP models provide long life and low maintenance service with excellent resistance to sunlight and atmospheric conditions. FRP troughs are lightweight, permitting easy installation, yet designed for rigidity and to meet specific dimensional tolerances. Longitudinal and horizontal stiffeners provide reinforcement to prevent twisting and deflection. FRP thickness is increased at least 50% at all support locations, flanges, and ends. Inner surfaces are smooth to minimize flow resistance.

Stainless steel models provide the longest-lasting, corrosion- and maintenance-free service at competitive capital costs. Standard material is 304SS; however, 316SS troughs are also available.

Spacing and elevation of *Poseidon* troughs are carefully determined so that dislodged suspended matter will be efficiently washed away and filter media will not be carried out. The required cross sectional area of a U-shaped trough for a given design flow may be determined from the figure below.



Ortho-Wash™ Baffles

Poseidon Ortho-Wash combines air scour and backwash to vigorously clean filtration media while lowering backwash rates and waste volumes. Ortho-Wash Baffles, integrally-mounted onto the backwash trough, prevent media loss by deflecting air and providing an adjacent quiescent volume to settle out lightweight GAC or anthracite. Negligible media loss occurs when air scouring and backwashing at prescribed rates. Unlike tube-settler baffles, Ortho-Wash Baffles are engineered to promote surface skimming of nuisance floating solids. Baffles are constructed of FRP, 304- or 316 stainless steel to provide durability and maintenance-free service.



Ortho-Wash Media Retention Baffle